



AGRICULTURAL RESEARCH INSTITUTE

PUSA







# CATALOGUE OF BIRDS OF THE AMERICAS AND THE ADJACENT ISLANDS

IN

FIELD MUSEUM OF NATURAL HISTORY

INCLUDING ALL SPECIES AND SUBSPECIES KNOWN TO OCCUR IN NORTH AMERICA  
MEXICO, CENTRAL AMERICA, SOUTH AMERICA, THE WEST INDIES, AND  
ISLANDS OF THE CARIBBEAN SEA, THE GALAPAGOS ARCHIPELAGO  
AND OTHER ISLANDS WHICH MAY BE INCLUDED ON  
ACCOUNT OF THEIR FAUNAL AFFINITIES

BY

CHARLES E. HELLMAYR

ASSOCIATE CURATOR OF BIRDS

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## PART XI

PLOCEIDAE -- CATAMBLYRHYNCHIDAE -- FRINGILLIDAE



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## PREFACE TO PART XI

The present installment, principally devoted to one large family, the Fringillidae, concludes the treatment of the American Passeriformes. It contains the enumeration, together with extensive bibliographic references, of the species and subspecies recognized as valid by the author. The arrangement of the finches as indicated in the succeeding pages is purely tentative, though it is mainly based on the scheme advanced by the late Peter Sushkin (*The Auk*, 42, pp. 259-261, 1925), according to the characters of the bony palate in the North American genera. The ultimate allocation of many neotropical groups depends, however, on the study of their anatomy, and in the absence of such data the author has been forced to rely on external features and analogy. In many cases it remains clearly an open question whether certain common characters are the expression of natural affinity or merely the result of secondary adaptation through parallel development.

In style and scope this part closely follows the standard adopted for the preceding volumes. It must be emphasized that it has not been the author's aim to write a monograph of the groups here treated. For such a task neither material nor time has been available. In a work of this magnitude it is simply impossible to investigate everything independently, and the author has to rely largely on the researches of others. In the case of many North American genera notably, where the author's own studies have been limited, and the accessible series have been inadequate, the account is principally, if not exclusively, based on recent monographs or revisions. Still, it is hoped that in spite of the many shortcomings, of which the author is only too well aware, the present volume may be of some service to ornithologists, containing, as it does, a digest of our actual knowledge of the birds forming the family of finches.

In perusing the list of specimens in Field Museum, it is well to keep in mind that only a certain percentage of the material has been accessible to the author for re-examination. Errors of identification or allocation, especially of migratory birds, should, therefore, be regarded with indulgence.

Various museums and individuals have again co-operated in the preparation of this volume by the loan of material or by supplying information on types or disputed questions. The author wishes particularly to express his gratitude to M. Jacques Berlioz of Paris, Dr. Enrico Festa of Torino, Count Nils Gyldenstolpe of Stock-

holm, Mr. Norman B. Kinnear of the British Museum, Professor A. Laubmann of Munich, Dr. Wilfred H. Osgood of Field Museum, Chicago, Mr. J. L. Peters of Cambridge, Massachusetts, Count Josef Seilern of Lukov, Cz. S. R., and Mr. John T. Zimmer of New York. He is also under great obligation to Professor Hermann Michel, Director, and Dr. M. Sassi, Curator of Birds, in the Museum of Natural History in Vienna, Austria, for continued free access to the collections and libraries under their care.

C. E. HELLMAYR

*May 26, 1936*

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# CATALOGUE OF BIRDS OF THE AMERICAS

BY CHARLES E. HELLMAYR

## PART XI

Order PASSERIFORMES—Concluded

Suborder OSCINES—Concluded

Family PLOCEIDAE. Weaver Finches

Subfamily PASSERINAE. House Sparrows

Genus PASSER Brisson

*Passer* Brisson, Orn., 1, p. 36; 3, p. 71, 1760—type, by subs. desig. (Gray, List Gen. Bds., p. 46, 1840, and l.c., 2nd ed., p. 60, 1841), *Fringilla domestica* Linnaeus.

*Pyrgila* Cuvier, Règne Anim., 1, p. 385, 1817 [= Dec. 7, 1816]—type, by subs. desig. (Sharpe, Cat. Bds. Brit. Mus., 12, p. 298, 1888), *Fringilla domestica* Linnaeus.

*Salicipasser* Bogdanow, Trud. Obsh. Kasan, 8, No. 4, p. 60, 1879—type, by orig. desig., *Fringilla montana* Linnaeus.

**\**Passer domesticus domesticus* (Linnaeus). ENGLISH SPARROW.**

*Fringilla domestica* Linnaeus, Syst. Nat., 10th ed., 1, p. 183, 1758—"in Europa"; Sweden accepted as type locality.

*Passer hostilis* Kleinschmidt, Falco, 11, p. 19, Dec., 1915—Tring, England (type in coll. of O. Kleinschmidt).

*Passer domesticus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 143, 1901 (monog.); Berg, Comun. Mus. Nac. Buenos Aires, 1, p. 283, 1901—Buenos Aires and Montevideo; Townsend and Hardy, Auk, 26, p. 78, 1909 (meas. of N. Amer. spec.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 390, 1910 (range in Argentina); Phillips, Auk, 32, pp. 51–59, 1915 (crit., meas.); Marelli, El Hornero, 1, p. 80, 1918—Curuzú Cuatiá, Corrientes; Sanzin, l.c., p. 152, 1918—Mendoza; Reboratti, l.c., p. 194, 1918—Concepción, Corrientes; Renard, l.c., 2, p. 60, 1920—Cañuelos, Buenos Aires; Peters, Bull. Mus. Comp. Zool., 65, p. 331, 1923—Puesto Horno and Huanuluan, Rio Negro; Bennett, Ibis, 1926, p. 332—Falkland Islands; Wetmore, Bull. U. S. Nat. Mus., 133, p. 431, 1926—Argentina (Las Palmas and Resis-



tencia, Chaco; Santa Fé to Vera, Santa Fé; Formosa; Victorica, Pampa; Potrerillos and Tunuyán, Mendoza), Paraguay (Asunción), Uruguay, and Brazil (Rio Grande do Sul and Rio de Janeiro); Friedmann, Bull. Mus. Comp. Zool., 68, p. 236, 1927—Argentina.

*Passer domesticus domesticus* Dabbene, El Hornero, 1, p. 245, 1919—Isla Martín García, Buenos Aires; Laubmann, Wiss. Ergeb. Deuts. Gran Chaco Exp., Vögel, p. 246, 1930—Estancia La Germania, Santa Fé (crit.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 96, 1932 (range in Chile).

*Range*.—British Isles<sup>1</sup> and Europe generally, excepting Italy, east to Siberia. Introduced into various parts of America, and now widely distributed throughout North America, in parts of Mexico, in the Bermudas, Bahamas (New Providence), Cuba, southeastern Brazil (Rio de Janeiro and Rio Grande do Sul), Uruguay,<sup>2</sup> Paraguay, northern Argentina (south to the Rio Negro and west to Mendoza, the Chaco, and Tucumán), Chile (from Antofagasta south to Malleco), and in the Falkland Islands.

52: Saskatchewan (Lake Johnston, 1); New York (Shelter Island, 3); Massachusetts (Great Island, 1); Wisconsin (Beaver Dam, 15); Illinois (Highland Park, 1; Ravinia, 1; Chicago, 3; Jackson Park, Chicago, 1; Joliet, 8; Addison, 1; Grand Chain, 1); Indiana (Bluffton, 2); Ohio (Columbus, 1); Louisiana (Buras, 5); California (San José, 1); Bahama Islands (Nassau, 2); Chile (Caldera, Atacama, 4); Argentina (Pasto Ventura, Catamarca, 1).

***Passer montanus montanus* (Linnaeus). EUROPEAN TREE SPARROW.**

*Fringilla montana* Linnaeus, Syst. Nat., 10th ed., 1, p. 183, 1758—"in Europe"; Sweden accepted as type locality.

*Passer montanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 145, 1901 (monog., full bibliog.).

*Range*.—British Isles, Europe, and northern Siberia; introduced into the United States at St. Louis, Missouri, where it has become acclimatized.

Subfamily PLOCEINAE. Weaverbirds

Genus PLOCEUS Cuvier<sup>3</sup>

*Ploceus* Cuvier, Règne Anim., 1, p. 383, "1817" [= Dec. 7, 1816]—type, by subs. desig. (Gray, List Gen. Bds., p. 42; 1840), *Loxia philippina* Linnaeus.

<sup>1</sup> About the proposed segregation of the British House Sparrow, cf. Stresemann, Bull. Brit. Orn. Cl., 33, pp. 47–49, 1913, and Hartert, Vögel Pal. Fauna, 3, pp. 2066–2067, 1921.

<sup>2</sup> If the Uruguayan population really originated in stock imported from Italy, this would be *P. d. italiae* (Vieillot), but the fact remains in doubt.

<sup>3</sup> Satisfactory subdivision of the genus appears to be impracticable.

*Textor* Temminck, Nouv. Rec. Pl. Col., livr. 54, p. [2] of text to Genus *Oriolus* Linn., Feb. 12, 1825—type, by monotypy, *Oriolus textor* Gmelin=*Oriolus cucullatus* P. L. S. Müller (cf. Oberholser, Proc. Biol. Soc. Wash., 34, p. 78, 1921).

*Hyphantornis* Gray, Genera of Birds, 1, Part 1, p. [1] of Ploceinae, May, 1844—type, by subs. desig. (Richmond, Proc. U. S. Nat. Mus., 53, p. 596, 1917), *Hyphantornis grandis* Gray.

**Ploceus cucullatus cucullatus** (P. L. S. Müller). BLACK-AND-YELLOW-MANTLED WEAVERBIRD.

*Oriolus cucullatus* P. L. S. Müller,<sup>1</sup> Natursyst., Suppl., p. 87, 1776—based on "Troupiale mâle, du Sénégal" Daubenton, Pl. Enl., pl. 375; Senegal.

*Hyphantornis cucullatus* Richmond, Smiths. Misc. Coll., 72, No. 6, p. 47, fig. 47, 1921—Haiti; Danforth, Auk, 46, p. 373, 1929—Port-au-Prince, road to St. Marc, and Artibonite Sloughs, Haiti.

*Textor cucullatus* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 510, 1928—Miri-goane, Port-au-Prince, Lake Saumâtre, Trou Caiman, and Ennery, Haiti.

*Textor cucullatus cucullatus* Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 401, 1926—Haiti (habits, nest); Wetmore, Auk, 50, p. 450, 1933—Barahona, Palo Alto, etc., Dominican Republic.

*Range*.—Introduced from West Africa to the island of Hispaniola, Greater Antilles, now acclimatized at various localities in Haiti and the Dominican Republic.

Subfamily ESTRILDINAE. Bengalies and Wydahs

Genus SPERMESTES Swainson

*Spermestes* Swainson, in Jardine, Natur. Libr., Orn., 7 (Bds. W. Africa, 1), p. 201, May, 1837—type, by monotypy, *Spermestes cucullata* Swainson.

**Spermestes cucullatus cucullatus** Swainson. HOODED WEAVER-FINCH.

*Spermestes cucullata* Swainson, in Jardine, Natur. Libr., Orn., 7 (Bds. W. Africa, 1), p. 201, May, 1837—no locality indicated=Senegal.

*Loxia prasipteron* Lesson, Rev. Zool., 2, p. 104, 1839—Senegal.

*Spermestes cucullata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 285, 1907—Porto Rico (monog., full bibliog.).

*Spermestes cucullatus cucullatus* Wetmore, Sci. Surv. Porto Rico & Virgin Islands, 9, p. 528, 1927—Porto Rico (habits).

*Range*.—Island of Porto Rico, Greater Antilles (introduced from western Africa).

Genus ESTRILDA Swainson

*Estrilda* Swainson, Zool. Journ., 3, No. 11, Sept.-Dec. 31, p. 349, 1827—type, by orig. desig., *Loxia astrild* Linnaeus.

<sup>1</sup> *Oriolus cuculatus* [sic] in the headline, but correctly spelled in margin and index.

**Estrilda melpoda melpoda** (Vieillot). SCARLET-CHEEKED  
WEAVER-FINCH.

*Fringilla melpoda* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 12, p. 177, 1817—  
"dans l'Inde et sur la côte occidentale de l'Afrique"—Senegal (cf. Neu-  
mann, Anzeiger Orn. Ges. Bay., 2, No. 4, p. 154, 1932).

*Estrilda melpoda* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 286, 1907  
(monog., full bibliog.).

*Estrilda melpoda melpoda* Wetmore, Sci. Surv. Porto Rico & Virgin Islands, 9,  
p. 530, 1927—Porto Rico (habits).

*Range.*— Western Africa, from Senegambia to Portuguese Guinea.  
Introduced in Porto Rico,<sup>1</sup> Greater Antilles, and common locally  
in the southwestern portion of the island.<sup>2</sup>

Family CATAMBLYRHYNCHIDAE. Plush-capped Finches  
Genus CATAMBLYRHYNCHUS Lafresnaye

*Catamblyrhynchus* Lafresnaye, Rev. Zool., 5, p. 301, 1842— type, by mono-  
typy, *Catamblyrhynchus diadema* Lafresnaye.

*Bustamantia* Bonaparte, Nuov. Ann. Sci. Nat. Bologna, (2), 1, p. 397, July,  
1844; idem, Atti Sesta Riun. Scienz. Ital. Milano, p. 317, 1845— type,  
by orig. desig., *Bustamantia capitaurea* Bonaparte.

**\*Catamblyrhynchus diadema diadema** (Lafresnaye). NORTH-  
ERN PLUSH-CAPPED FINCH.

*Catamblyrhynchus diadema* Lafresnaye, Rev. Zool., 5, p. 301, 1842—"in  
Colombia" (type, from Bogotá, in coll. of F. de Lafresnaye, now in Museum  
of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp.  
Zool., 70, p. 368, 1930); idem, Mag. Zool., (2), 5, pl. 34, 1843—Bogotá,  
Colombia; Gray and Mitchell, Genera of Bds., 2, p. 385, pl. xciii, 1844 —  
Bogotá; Sclater, Proc. Zool. Soc. Lond., 23, p. 159, 1855—Bogotá; Jardine,  
Edinb. New Phil. Journ., (n.s.), 3, p. 91, 1856—eastern range of Ecuador;  
Sclater, Cat. Coll. Amer. Bds., p. 106, 1862—Bogotá; Sclater and Salvin, Proc.  
Zool. Soc. Lond., 1879, p. 507—Santa Elena, Antioquia, Colombia; Berlepsch  
and Taczanowski, l.c., 1884, p. 293—Cayandeled and Chaguarpata, Ecuador;  
Sharpe, Cat. Bds. Brit. Mus., 12, p. 142, 1888— part, Colombia (Bogotá,  
Medellin, San Sebastian) and Ecuador (Intag, "Sarayacu"); Allen, Bull.  
Amer. Mus. N. H., 2, p. 72, 1889—"Nanegal," Ecuador; Goodfellow, Ibis,  
1901, p. 473—"Mindó," Ecuador; Ménégau, Miss. Serv. Géogr. Armée  
Mes. Arc Mérid. Equat., 9, p. B74, 1911—Chorillos, Ecuador; Chapman,  
Bull. Amer. Mus. N. H., 36, p. 554, 1917—Andes west of Popayán, above  
Salento, and El Eden, Colombia; Lönnberg and Rendahl, Ark. Zool., 14,

<sup>1</sup> According to Neumann (l.c., p. 155), Porto Rico birds agree with others  
from Senegambia.

<sup>2</sup> As recorded by Pelzeln (Orn. Bras., 3, p. 232, note 3, 1870), specimens of  
*Hypochera "ultramarina"* were shot by Natterer on July 1, 1821, at São Chris-  
tovão, near Rio de Janeiro. These birds, which are still in the Vienna Museum,  
had no doubt escaped from captivity. They seem to belong to *H. funerea nigerrima*  
Sharpe, from Angola.

No. 25, p. 78, 1922—near Mindo, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 604, 1926—"Nanegal," "Gualea," Hacienda Garzón, Baeza, upper Sumaco, and upper Rio Upano, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 628, 1932—Las Palmas and El Portete de Tarquí, Ecuador.

*Bustamantia capilaurea* Bonaparte, Nuov. Ann. Sci. Nat. Bologna, (2), 1, p. 397, July, 1844—Santa Fé de Bogotá, Colombia (type in coll. of O. Antinori, Perugia); idem, Atti Sesta Riun. Scienz. Ital. Milano, pp. 318, 406, 1845—Santa Fé de Bogotá.

*Catamblyrhynchus diadema diadema* Todd and Carriker, Ann. Carnegie Mus., 14, p. 535, 1922—San Sebastian, Sierra Nevada of Santa Marta, Colombia.

*Range*.—Temperate and upper Subtropical zones of Ecuador, Colombia, and western Venezuela, east to the Caracas region.<sup>1</sup>

3: Colombia ("Bogotá," 2); Venezuela (Rio Mucujón, Mérida, 1).

***Catamblyrhynchus diadema citrinifrons* Berlepsch and Stolzmann.<sup>2</sup> SOUTHERN PLUSH-CAPPED FINCH.**

*Catamblyrhynchus diadema citrinifrons* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 350—Maraynioc, Dept. Junín, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 168, 1927).

*Catamblyrhynchus diadema pallida* Carriker, Proc. Acad. Nat. Sci. Phila., 86, p. 330, June, 1934—Porculla Pass, Dept. Lambayeque, Peru (type in the Academy of Natural Sciences, Philadelphia; descr. of young).

<sup>1</sup> Birds from western Ecuador and Colombia (all three ranges) agree well together. Two adults from La Cuchilla, Mérida, are not different either, but a third specimen from the same region (Rio Mucujón) has the forehead much lighter and of the same clear lemon yellow as *C. d. citrinifrons*. A single male from Cerro del Avila, near Caracas, is slightly smaller (wing, 62; tail, 66), and has a few uropygial feathers tipped with light rufous. In every other color character it can be matched by individuals from Colombia. Specimens from eastern Ecuador, whence we have no material, are stated by Chapman to approach *citrinifrons* in color of forehead.

*Additional material examined*.—Venezuela: Galipán, Cerro del Avila, 1; La Cuchilla, Mérida, 2.—Colombia: "Bogotá," 5; La Pica, Santander, 2; El Eden, Quindío Andes, 1; Sancudo, Caldas, 1; coast range west of Popayán, 2.—Ecuador: above Nanegal, 3; "Quito," 1.

<sup>2</sup> *Catamblyrhynchus diadema citrinifrons* Berlepsch and Stolzmann: Similar to *C. d. diadema*, but patch on forecrown paler, lemon yellow to lemon chrome instead of light cadmium to orange yellow, and frontal feathers shorter as well as softer and recumbent rather than erect; under parts lighter rufous. Wing, 69, (female) 66; tail, 73, (female) 70–71; bill, 9½–11.

The characters of *C. d. pallida*, viz., brownish loreal spot, sooty occiput, olive grayish back, and small size, are those of the juvenal plumage, as is plainly shown by similarly colored examples from Colombia. Besides, an adult male from Palambra, Dept. Piura, in the same general region as the type locality, which we have seen in the American Museum of Natural History of New York, does not differ from Junín examples. An immature female from Incachaca, Bolivia, apparently belongs here too, showing the characteristic pale ventral surface and the light (lemon yellow) frontal patch.

Four specimens from Maraynioc, one from Palambra, and one from Incachaca (Prov. Cochabamba), Bolivia, examined.

*Catamblyrhynchus diadema* (not of Lafresnaye) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 520—Pumamarca and Maraynioc, Peru; idem, Orn. Pér., 3, p. 24, 1886—same localities; Sharpe, Cat. Bds. Brit. Mus., 12, p. 142, 1888—part, Peru.

**Range.**—Temperate and upper Subtropical zones of Peru (Palambla, Dept. Piura; Porculla Pass, Dept. Lambayeque; Maraynioc, Huacapistana, and Pumamarca, Dept. Junín; Oconeque, Dept. Puno) and Bolivia (Incachaca, Dept. Cochabamba).

Family FRINGILLIDAE. Grosbeaks, Finches, Sparrows,  
and Buntings

Subfamily RICHMONDENINAE. Cardinals and Allies

Genus *SALTATOR* Vieillot<sup>1</sup>

*Saltator* Vieillot, Analyse Nouv. Orn. Elém., p. 32, April, 1816—type, by monotypy, "Grand Tangara, Buffon" = *Tanagra maxima* P. L. S. Müller.

*Stelgidostomus* Ridgway, Auk, 15, p. 226, 1898—type, by orig. desig., *Saltator maxillosus* Cabanis.

**\**Saltator atriceps atriceps* (Lesson).<sup>2</sup> BLACK-HEADED SALTATOR.**

*Tanagra* (*Saltator*) *atriceps* Lesson, Cent. Zool., p. 208, pl. 69, before May, 1832—Mexico (location of type not stated, but presumably in the Paris Museum).

*Tanagra gnatho* Lichtenstein, Preis.-Verz. Säug., Vogel, etc., Mexico, p. 2, 1830—Mexico (type, from Papantla, in Berlin Museum); Cabanis, Journ. Orn., 11, p. 56, 1863 (reprint).

*Arremon giganteus* Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 117, pub. June 14, 1838—Guatemala (type in coll. of Col. Velasquez de León).

*Saltator atriceps* Bonaparte, Consp. Gen. Av., 1, (2), p. 488, 1850—Mexico; Cabanis, Mus. Hein., 1, p. 142, 1851—Mexico; Selater, Proc. Zool. Soc. Lond., 24, p. 69, 1856—part, southern Mexico (Papantla, vicinity of Córdoba) and Guatemala (Escuintla) (monog.); idem, l.c., 24, p. 302, 1856—Córdoba, Mexico; idem, l.c., 26, p. 358, 1858—Comayagua, Honduras; Moore, l.c., 27, p. 58, 1859—Omoa, Honduras; Selater, l.c., 27, pp. 364, 377, 1859—vicinity of Jalapa (Vera Cruz) and Playa Vicente (Oaxaca), Mexico; Selater and Salvin, Ibis, 1859, p. 14—part, Comayagua, Honduras; Taylor, Ibis, 1860, p. 111—near Comayagua; Selater, Cat. Coll. Amer. Bds., p. 95, 1862—Vera Cruz, Mexico; idem, Proc. Zool. Soc. Lond., 1864, p. 174—hot and temperate regions of Vera Cruz; Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—Honduras; Lawrence, Bull. U. S. Nat. Mus., 4, p. 19, 1876—Guichicovi and Santa Efigenia, Oaxaca; Boucard, Ann. Linn. Soc.

<sup>1</sup> About anatomy and classification, cf. Clark, Auk, 30, pp. 262–264, 1913.

<sup>2</sup> A new race, *S. a. flavicrissus* Griscom (Auk, 54, p. 198, April, 1937—type, from Iguagilife, Guerrero, in Museum of Comparative Zoology, Cambridge, Mass.) has lately been discovered in the State of Guerrero, southwestern Mexico. It differs by slightly broader pectoral band, less brownish flanks, and more olive ochraceous, less orange crissum.

Lyon, (n.s.), **25**, p. 43, 1878—Guatemala; Nutting, Proc. U. S. Nat. Mus., **6**, pp. 382, 400, 1883—Sucuyá and Los Sábalos, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 325, 1884—part, Mexico (excl. Yucatan) south to Nicaragua; Ferrari-Perez, Proc. U. S. Nat. Mus., **9**, p. 141, 1886—Janhuítlan(?), Oaxaca, and Plan del Rio, Vera Cruz; Sclater, Cat. Bds. Brit. Mus., **11**, p. 283, 1886—part, spec. a-d, g-o, r, Mexico (Vera Cruz, Jalapa), Belize, Guatemala (Chisec, Coban, Vera Paz, Retalhuleu, San Diego, San Pedro Mártir, El Zapote), and Nicaragua; Ridgway, Proc. U. S. Nat. Mus., **10**, p. 586, 1888—Segovia River, Honduras; Richmond, l.c., **16**, p. 491, 1893—Greytown, Nicaragua; idem, l.c., **18**, p. 631, 1896—Alta Mira, Tamaulipas; Chapman, Bull. Amer. Mus. N. H., **10**, p. 28, 1898—Jalapa, Mexico; Dearborn, Field Mus. Nat. Hist., Orn. Ser., **1**, p. 120, 1907—Guatemala (Gualan, Mazatenango, Patulúl, Lake Amatitlan); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1112, 1912 (range, excl. of Yucatan).

*Saltator atriceps atriceps* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, pp. 661, 674, 1901—Mexico (excl. of Yucatan) to Costa Rica (monog.); Bangs, Bull. Mus. Comp. Zool., **39**, p. 155, 1903—Yaruca, Honduras; Carriker, Ann. Carnegie Mus., **6**, p. 878, 1910—El Hogar, Costa Rica (crit.); Bangs and Peters, Bull. Mus. Comp. Zool., **67**, p. 485, 1927—Presidio and Motzorongu, Vera Cruz; Bangs and Peters, l.c., **68**, p. 402, 1928—Almaloya and Tapanatepec, Oaxaca; Austin, l.c., **69**, p. 389, 1929—south of Progreso, Honduras (crit.); Griscom, Bull. Amer. Mus. N. H., **64**, p. 353, 1932—Guatemala (Finca Chamá, Sepacuite, Secanquim, Hacienda California, Finca El Cipres, San Felipe); Stone, Proc. Acad. Nat. Sci. Phila., **84**, p. 341, 1932—San Juancito and Cantarranas, Honduras.

*Range*.—Tropical zone of southeastern Mexico, from southern Tamaulipas (Alta Mira) through Vera Cruz, Puebla, Oaxaca, Chiapas, Tabasco, and Guatemala to Nicaragua and eastern Costa Rica.<sup>1</sup>

15: Mexico (Atoyac; Vera Cruz, 1; unspecified, 1); Guatemala (Salamá, Baja Vera Paz, 1; Gualan, Zacapa, 3; Mazatenango, 1; Patulúl, Sololá, 3; Lake Amatitlan, 1); Nicaragua (San Gerónimo, Chinandega, 4).

**\*Saltator atriceps raptor (Cabot).<sup>2</sup> YUCATAN BLACK-HEADED SALTATOR.**

<sup>1</sup> Birds from Central America and Costa Rica are, as has been pointed out by Ridgway and Peters, so variously intermediate between the Mexican *atriceps* (with complete black pectoral band and black auriculars) and *lacertosus* that no fast line can be drawn between the ranges of the two races. It is entirely a matter of personal preference and depends largely on the material to which a given author has access whether the inhabitants of that area of intermediacy are referred to the one form rather than to the other.

<sup>2</sup> *Saltator atriceps raptor* (Cabot) differs from the nominate race by decidedly paler gray breast and abdomen with very little, if any, olivaceous tinge on the flanks.

Though we have no difficulty in separating six Yucatan skins by their paler under parts, this form is perhaps a little doubtful since Griscom refuses to admit its distinctness.

*Pyrrhula raptor* Cabot, Journ. Bost. Soc. Nat. Hist., 5, No. 1, p. 90, pl. 12, Jan., 1845—Yucatan (part, descr. of male; cotypes in coll. of S. Cabot, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Auk, 32, p. 169, 1915, and Bull. Mus. Comp. Zool., 70, p. 375, 1930).

*Saltator atriceps* (not of Lesson) Sclater, Proc. Zool. Soc. Lond., 24, p. 69, 1856—part, Yucatan; Sclater and Salvin, Ibis, 1859, p. 14—part, Yucatan; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 200, 1869—Mérida, Yucatan; Boucard, Proc. Zool. Soc. Lond., 1883, p. 443—City of Mérida and Izamal, Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 325, 1884—part, Yucatan; Sclater, Cat. Bds. Brit. Mus., 11, p. 283, 1886—part, spec. e, f, Yucatan; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1112, 1912—part, Yucatan.

*Saltator atriceps atriceps* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 661, 1901—part, Yucatan; Cole, Bull. Mus. Comp. Zool., 50, p. 142, 1906—Chichen-Itzá, Yucatan; Griscom, Amer. Mus. Novit., 235, p. 17, 1926—Palmul, Yucatan (crit.).

*Saltator atriceps raptor* Peters, Auk, 30, p. 380, 1913—Camp Mengel, Quintana Roo (crit.).

*Range.*—Yucatan Peninsula and probably the adjacent parts of British Honduras.

1: Mexico (Yucatan, 1).

**\*Saltator atriceps lacertosus Bangs. PANAMA BLACK-HEADED SALTATOR.**

*Saltator lacertosus* Bangs, Proc. New Engl. Zool. Cl., 2, p. 31, 1900—Loma del León, Panama (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 375, 1930).

*Saltator atriceps* (not of Lesson) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 297, 1861—Lion Hill, Panama; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 351—Panama Railroad; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 102, 1868—Pacuare, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1883, p. 421—Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 325, 1884—part, Costa Rica (Pacuare) and Panama (Lion Hill, Obispo, Panama City); Sclater, Cat. Bds. Brit. Mus., 11, p. 283, 1886—part, spec. p, q, s-u, Costa Rica and Panama; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Naránjo, Costa Rica.

*Saltator atriceps lacertosus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 663, 1901—Panama to Costa Rica (Talamanca); Bangs, Proc. New Engl. Zool. Cl., 3, p. 68, 1902—Boquete, Chiriquí; Carriker, Ann. Carnegie Mus., 6, p. 878, 1910—Costa Rica (Jiménez, Naránjo, Guayábo, Juan Viñas, El Hogar); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 281, 1910—Guayábo, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1112, 1912—Costa Rica (Talamanca) to Panama; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 276, 1918—Agua Clara, Panama (nest and eggs descr.); Hallinan, Auk, 41, p. 322, 1924—New Culebra, Panama; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 461, 1928—Almirante and Chiri-

quicito, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 338, 1931—Almirante and Guabo, Panama.

*Range*.—Tropical zone of Caribbean Costa Rica and western Panama east to the Canal Zone.<sup>1</sup>

5: Costa Rica (Guayábo, 1; Matina, 1; Santa Cruz de Turrialba, 1; Guápiles, 1); Panama (Colón, 1).

**\*Saltator maximus gigantodes** Cabanis. BUFF-THROATED SALTATOR.

*Saltator gigantodes* Cabanis, Mus. Hein., 1, p. 142, Oct., 1851—Mexico (type in Heine Collection, now in Municipal Museum, Halberstadt).

*Saltator magnoides* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 69, 1856—part, Córdoba, Mexico; idem, l.c., 24, p. 302, 1856—Córdoba; idem, l.c., 27, pp. 364, 377, 1859—vicinity of Jalapa (Vera Cruz) and Playa Vicente (Oaxaca), Mexico; idem, Cat. Coll. Amer. Bds., p. 95, 1862—part, spec. b, Vera Cruz; idem, Proc. Zool. Soc. Lond., 1864, p. 174—Valley of Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 549, 1869—hot region of Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 327, 1884—part, Mexican references and localities; Sclater, Cat. Bds. Brit. Mus., 11, p. 284, 1886—part, spec. a, b, Jalapa and Vera Cruz, Mexico; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1112, 1912—Mexico.

*Saltator magnoides magnoides* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 663, 1901—southern Mexico (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 485, 1927—Motzorongo, Vera Cruz.

*Saltator magnoides gigantodes* Peters, Bull. Mus. Comp. Zool., 69, p. 467, 1929—southern Mexico (crit.).

*Range*.—Tropical zone of southeastern Mexico, in states of Vera Cruz, (?)Tabasco, and Oaxaca.<sup>2</sup>

1: Mexico (Teapa, Tabasco, 1).

**\*Saltator maximus magnoides** Lafresnaye. CENTRAL-AMERICAN BUFF-THROATED SALTATOR.

*Saltator magnoides* Lafresnaye, Rev. Zool., 7, p. 41, 1844—"Mexico," errore, = Guatemala (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 375, 1930<sup>3</sup>); Sclater, Proc. Zool. Soc. Lond., 24, p. 69, 1856—part, descr. and hab. Coban, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 95, 1862—part, spec. a, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 327, 1884—part, Guatemala to Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 284, 1886—part, spec. c-l, Belize, Guatemala (Coban,

<sup>1</sup> Six Costa Rican specimens are nearer to *S. a. lacertosus*, as represented by skins from the Canal Zone and Chiriquí (Boquete).

<sup>2</sup> *Additional material examined*.—Vera Cruz: Jalapa, 5; Cofre de Perote, 2.—Oaxaca: Playa Vicente, 1.—Tabasco: Teapa, 5.

<sup>3</sup> Mr. Peters has shown Lafresnaye's type to agree with the form known by the subspecific name *medianus*, the locality "Mexico" being obviously an error.



Choctum, Chisec), Honduras (San Pedro), and Costa Rica (Irazú, Turrialba, Bebedéro); Underwood, Ibis, 1896, p. 436—Miravalles to Bebedéro, Costa Rica.

*Saltator magnoides medianus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 664, 1901—Guatemala to Costa Rica (no type nor type locality specified);<sup>1</sup> Bangs, Bull. Mus. Comp. Zool., 39, p. 156, 1903—Yaruca, Honduras; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 120, 1907—Los Amates, Guatemala; Ferry, l.c., p. 281, 1910—Guayábo and Port Limón, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 877, 1910—Costa Rica (habits); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1112, 1912—Guatemala to Costa Rica; Rendahl, Ark. Zool., 12, No. 8, p. 35, 1919—Siquirres, Costa Rica, and San Juan del Norte, Nicaragua; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 461, 1928—Almirante and Chiriquicito, Panama.

*Saltator magnoides magnoides* Peters, Auk, 30, p. 379, 1913—Xcopen, Quintana Roo; idem, Bull. Mus. Comp. Zool., 69, pp. 467, 468, 1929—Lancetilla, Honduras (crit., range); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 242, 1932—Eden, Nicaragua; Stone, l.c., 84, p. 341, 1932—Lancetilla, Tela, and Laguna Toloa, Honduras.

*Saltator maximus magnoides* Peters, Bull. Mus. Comp. Zool., 71, p. 338, 1931—Almirante, Guábo, and Crimacola, Panama.

*Saltator magnus magnoides* Griscom, Bull. Amer. Mus. N. H., 64, p. 353, 1932—Guatemala (Finca Chamá, Chipoc, Chimoxan, Finca Concepción, Secanquim, Finca Sepacuite, La Perla, Barrillos).

*Range.*—Tropical zone of Chiapas (Santa Rita), Campeche (San Felipe), Quintana Roo (Xcopen), British Honduras, Guatemala, Honduras, Nicaragua, Costa Rica (except extreme-southwestern section), and Caribbean slope of northwestern Panama (Almirante Bay region).

18: Guatemala (Los Amates, Izabal, 3); Nicaragua (San Rafael del Norte, 1); Costa Rica (Limón, 8; Peralta, 1; Santa Cruz de Turrialba, 1; Guayábo, 4).

**\*Saltator maximus intermedius** Lawrence. PANAMA BUFF-THROATED SALTATOR.

*Saltator intermedius* Lawrence, Proc. Acad. Nat. Sci. Phila., 1864, p. 106—New Granada, Isthmus of Panama (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); idem, Ann. Lyc. Nat. Hist. N. Y., 8, p. 176, 1865—David, Chiriquí (crit.); Bangs, Proc. New Engl. Zool. Cl., 2, p. 32, 1900—Loma del León, Panama (crit.); idem, Auk, 18, p. 369, 1901—Divalá, Chiriquí; idem, l.c., 24, p. 311, 1907—Boruca, El Pózo, Barránca de Térraba, and Barránca de Puntarenas, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 876, 1910—Costa Rica (Pózo Azul de Pirrís, El General, Buenos Aires, Boruca).

*Saltator magnoides* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 69, 1856—part, Chiriquí; Sclater and Salvin, l.c., 1864, p. 351—Panama Rail-

<sup>1</sup> Berlepsch (l.c., p. 1112) selected Guatemala as type locality.

road; Salvin, l.c., 1867, p. 140—Santa Fé, Veraguas; idem, l.c., 1870, p. 189—Veraguas (Calovévora, Chitrá) and Chiriquí (Mina de Chorchá, Bugaba, Volcan de Chiriquí); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 327, 1884—part, Panama references and localities; Selater, Cat. Bds. Brit. Mus., 11, p. 284, 1886—part, spec. m-t, Chiriquí, Bugaba, Volcan de Chiriquí, Santa Fé, and Panama; Cherrie, Anal. Inst. Fis.-Geogr. Mus. Nac. Costa Rica, 4, p. 139, 1893—Lagarto, Boruca, and Buenos Aires, Costa Rica; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 4, 1899—Colon, Panama.

*Saltator magnoides intermedius* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 665, 1901—Panama to Chiriquí (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 68, 1902—Boquete, Chiriquí; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 224, 1906—savanna of Panama; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1113, 1912—Chiriquí to Panama; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 276, 1918—Gatun, Panama (nest and eggs descr.); Hallinan, Auk, 41, p. 322, 1924—Gatun, New Culebra, and Gorgona, Panama (nest and eggs descr.); Peters, Bull. Mus. Comp. Zool., 69, p. 468, 1929—southwestern Costa Rica to the Canal Zone (crit.).

*Range.*—Tropical zone of southwestern Costa Rica (Térraba Valley north to Pózo Azul de Pirrís) and western Panama east to the Canal Zone.<sup>1</sup>

13: Costa Rica (El Pózo, Rio Térraba, 2; Boruca, 2; Buenos Aires, 2; Puerto Jiménez, Gulf of Dulce, 1); Panama (Bugaba, Chiriquí, 1; Colón, 4; Boqueron, 1).

***Saltator maximus iungens* Griscom.<sup>2</sup> CANA BUFF-THROATED SALTATOR.**

*Saltator maximus iungens* Griscom, Bull. Mus. Comp. Zool., 69, p. 184, 1929—Cana, Darien (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Range.*—Tropical zone of extreme eastern Panama (Cana, Darien).

**\**Saltator maximus maximus* (P. L. S. Müller).<sup>3</sup> LESSER BUFF-THROATED SALTATOR.**

<sup>1</sup> Birds from the Térraba Valley agree with a series from Panama.

<sup>2</sup> *Saltator maximus iungens* Griscom: "Similar to *S. m. maximus*, but connecting it with *S. m. intermedius*, being intermediate in size and having the crissum yellowish, less fulvous; differing from both of its allies by duller, less yellowish green upper parts. Wing (males), 93–102 mm." (Griscom, l.c.)

<sup>3</sup> I cannot recognize this species in "Le Griverd, de Cayenne" Daubenton, Pl. Enl., pl. 616, upon which *Coracias cayanus* Boddaert (Tabl. Pl. Enl., p. 38, Dec., 1783), *Coracias cayennensis* Gmelin (Syst. Nat., 1, [2], p. 381, 1788), and *Saltator virescens* Vieillot (Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 104, 1817) are based. The bird is represented with reddish bill, white throat, and olive green thighs and under tail coverts, characters that do not fit either this or any other member of the genus. We do not understand Mathews and Iredale's remark (Austr. Av. Rec., 3, p. 40, 1915) that "the figure is a splendidly colored and accurate plate of the Cayenne bird," and reject it as unidentifiable, while pl. 205, the basis of Müller's description, unquestionably refers to the present species.

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- Tanagra maxima* P. L. S. Müller, *Natursyst.*, Suppl., p. 159, 1776—based on "Tangara, des grands bois de Cayenne" Daubenton, *Pl. Enl.*, pl. 205; Cayenne.
- Tanagra major* "Brisson" Boddaert, *Tabl. Pl. Enl.*, p. 12, 1783—based upon Daubenton, *Pl. Enl.*, pl. 205; Cayenne.
- Tanagra magna* Gmelin, *Syst. Nat.*, 1, (2), p. 890, 1789—based on Daubenton, *Pl. Enl.*, pl. 205, Cayenne; Wied, *Beitr. Naturg. Bras.*, 3, (1), p. 525, 1830—Rio Guajindiba, Rio de Janeiro (habits).
- Saltator olivaceus* Vieillot, *Nouv. Dict. Hist. Nat.*, nouv. éd., 14, p. 108, 1817—based on Daubenton, *Pl. Enl.*, pl. 205, Cayenne; Lafresnaye and d'Orbigny, *Syn. Av.*, 1, in *Mag. Zool.*, 7, cl. 2, p. 36, 1837—"Corrientes" = Yuracares, Bolivia (spec. in Paris Museum examined).
- Saltator cayana* (not *Coracias cayanus* Boddaert) d'Orbigny, *Voy. Amér. Mérid.*, Ois., p. 290, 1839—Yuracares, Bolivia.
- Saltator cayanus* Chubb, *Bds. Brit. Guiana*, 2, p. 450, 1921—British Guiana.
- Saltator magna* Bonaparte, *Consp. Gen. Av.*, 1, (2), p. 489, 1850—Brazil and Guiana.
- Saltator magnus* Cabanis, *Mus. Hein.*, 1, p. 142, 1851—Brazil; Burmeister, *Syst. Uebers. Th. Bras.*, 3, p. 199, 1856—Nova Friburgo, Rio de Janeiro (nest and eggs descr.); Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 70, 1856 (monog.); Pelzel, *Orn. Bras.*, 3, p. 218, 1870—Rio de Janeiro (Sapitiba, Goyabeira), Goyáz (Goyáz, Rio dos Piloens), Barra do Rio Negro [= Manãos] and Rio Içanna, Brazil; Taczanowski, *Orn. Pér.*, 2, p. 539, 1884—Peru (Xeberos, Yurimaguas, Amable Maria, Huiro, Cosnipata, Huambo, Chirimoto, Moyobamba); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 285, 1886—Colombia (Minca, Manaure, "Bogotá," Remedios), Ecuador (Santa Rita, Sarayacu), Peru (Chamicuro), Bolivia (Tilotilo), British Guiana (Bartica Grove, Roraima), Cayenne, Pará, Pernambuco, Bahia, and "Rio Claro, Goyáz;" Berlepsch and Hartert, *Nov. Zool.*, 9, p. 23, 1902—Venezuela (Maipures, Orinoco; Suapuré, La Prición, and Nicare, Caura); Bertoni, *Faun. Parag.*, p. 64, 1914—Puerto Bertoni, Paraguay.
- Saltator maximus* Allen, *Bull. Amer. Mus. N. H.*, 3, p. 364, 1891—Chapada, Matto Grosso; Ihering, *Cat. Faun. Braz.*, 1, p. 370, 1907—Bahia and Rio Doce, Espirito Santo (range); Berlepsch, *Nov. Zool.*, 15, p. 118, 1908—Cayenne; idem, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1113, 1912 (range); Sneath, *Bol. Mus. Goeldi*, 8, p. 459, 1914—Pará, Benevides, Apehú, Peixe-Boi, Santo Antonio do Prata, Rio Guamá, Rio Tocantins, Rio Tapajóz, Rio Purús (Bom Lugar), Monte Alegre, Obidos, and Maranhão, Brazil; Cherrie, *Sci. Bull.*, *Mus. Brookl. Inst.*, 2, p. 200, 1916—Orinoco region; Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 561, 1917—Colombia (Noanamá, San José, Barbacoas, La Frijolera, Puerto Valdivia, below Andalucía, Buena Vista, Villavicencio, Florencia); idem, *l.c.*, 55, p. 616, 1926—Ecuador (many localities from the Tropical zone east and west of the Andes); Todd and Carriker, *Ann. Carnegie Mus.*, 14, p. 502, 1922—Santa Marta region (crit.).
- Saltator maximus maximus* Hellmayr, *Field Mus. Nat. Hist.*, *Zool. Ser.*, 12, p. 290, 1929—Maranhão (Tury-assú, Rosario, Fazenda Inhumá) and Goyáz (Santo Antonio) (crit.); Zimmer, *l.c.*, 17, p. 463, 1930—Vista

Alegre, Huachipa, and Chinchao, Peru; Naumburg, Bull. Amer. Mus. N. H., 60, p. 349, 1930—Tapirapoan and Utiarity, Matto Grosso.

*Sallator cayanus interjector* Chubb, Ann. Mag. Nat. Hist., (9), 8, p. 445, Oct., 1921—Serra da Chapada, Matto Grosso, Brazil (type in British Museum).

*Sallator cayanus bolivianus* Chubb, Ann. Mag. Nat. Hist., (9), 8, p. 445, Oct., 1921—Chulumani, Bolivia (type in British Museum).

*Sallator cayanus santaritensis* Chubb, Ann. Mag. Nat. Hist., (9), 8, p. 446, Oct., 1921—Santa Rita, western Ecuador (type in British Museum).

*Range*.—Tropical zone of South America, from Colombia (including Santa Marta region), Venezuela, and the Guianas south to Rio de Janeiro,<sup>1</sup> Goyáz, Matto Grosso, and Paraguay (Puerto Bertoni); in the Andean countries south to western Ecuador, and east of the Andes to southeastern Peru and northeastern Bolivia (Chulumani, Tilotilo, etc., Dept. La Paz; Yuracares, Dept. El Beni).<sup>2</sup>

29: British Guiana (Hyde Park, Demerara River, 1); Venezuela (Maracay, Aragua, 1; Orope, Zulia, 1); Colombia (Tucurinca, Santa Marta, 1; Monteria, Bolívar, 1; Cauca, 1; "Bogotá," 2); Ecuador (Puente de Chimbo, 2); Peru (Moyobamba, 4; Rioja, 1; Vista Alegre, 5; Huachipa, 1; Chinchao, 1); Brazil (Tury-assú, Maranhão, 1; Rosario, Maranhão, 1; Inhumas, Alto Parnahyba, Maranhão, 1; Chapada, Matto Grosso, 2; Santo Antonio, Goyáz, 1; Santo Amaro, Bahia, 1).

**\**Saltator atripennis atripennis* Selater. BLACK-WINGED SALTATOR.**

*Sallator atripennis* Selater, Proc. Acad. Nat. Sci. Phila., 8, p. 261, 1856—Popayán, Colombia (type in coll. of the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 25, 1899); Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 505—Medellin, Antioquia, Colombia; Selater, Cat. Bds. Brit. Mus., 11, p. 286, 1886—part, spec. d-f, Colombia (Medellin, Antioquia); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1120—Pueblo Rico, western Andes of Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1113, 1912—part, Medellin, Colombia.

*Sallator atripennis atripennis* Chapman, Bull. Amer. Mus. N. H., 36, p. 562, 1917—western and central Andes of Colombia (La Frijolera, San Antonio, west of Popayán, Cocal, Ricaurte, Barbacoas, Miraflores, and Salento).

<sup>1</sup> Not yet taken either in São Paulo or Minas Geraes, Berlepsch's records (1912, p. 1113) from the first-named state being erroneous.

<sup>2</sup> Study of more than two hundred specimens from the whole range, including topotypes of the three races discriminated by the late Charles Chubb, fails to reveal any racial variation worthy of recognition in nomenclature. Birds from Matto Grosso (*interjector*) and other parts of Brazil appear to me indistinguishable from a Guianan series, and nineteen skins from western Ecuador (*santaritensis*) I am likewise unable to separate. Birds from Bolivia (*bolivianus*) and Peru possibly average slightly larger, but this divergency is so completely bridged by individual variation that it would serve no practical purpose to maintain a western form.

*Range*.—Tropical and Subtropical zones of the western and central Andes (west slope) of Colombia, and of extreme north-western Ecuador.<sup>1</sup>

2: Colombia (San Antonio, Cauca, 2).

***Saltator atripennis caniceps* Chapman.<sup>2</sup> GRAY-CROWNED BLACK-WINGED SALTATOR.**

*Saltator atripennis caniceps* Chapman, Bull. Amer. Mus. N. H., **33**, p. 182, March, 1914—Fusugasugá, eastern Andes of Colombia (type in the American Museum of Natural History, New York); idem, l.c., **36**, p. 562, 1917—eastern Andes of Colombia (Fusugasugá, Aguadita, Anolaima, Panama, Muzo) and Ecuador (Gualea); idem, l.c., **55**, p. 617, 1926—Bucay, Huigra, Gualea, and La Chonta, Ecuador.

*Saltator atripennis* (not of Sclater, 1856) Sclater, Proc. Zool. Soc. Lond., **27**, p. 138, 1859—Pallatanga, Ecuador; idem, l.c., **28**, p. 85, 1860—Nanegal, Ecuador; idem, Cat. Coll. Amer. Bds., p. 95, 1862—Pallatanga; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 548—Chimbo, Ecuador; Sclater, Cat. Bds. Brit. Mus., **11**, p. 286, 1886—part, spec. a-c, g, Pallatanga, Nanegal, and "Quito," Ecuador, and "Bogotá," Colombia; Goodfellow, Ibis, 1901, p. 472—Gualea, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1113, 1912—part, "Bogotá" and western Ecuador; Lönnberg and Rendahl, Ark. Zool., **14**, No. 25, p. 79, 1922—road to Gualea, Ecuador.

*Range*.—Subtropical zone of western Ecuador and of the eastern Andes of Colombia.

**\**Saltator similis similis* Lafresnaye and d'Orbigny. ALLIED SALTATOR.**

*Saltator similis* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., **7**, cl. 2, p. 36, 1837—Corrientes, Argentina (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 290, pl. 28, fig. 2, 1839—Rincon de Luna, southern Corrientes; Bonaparte, Consp. Gen. Av., **1**, (2), p. 489, 1850—Corrientes; Cabanis, Mus. Hein., **1**, p. 143, 1851—Brazil; Sclater, Proc. Zool. Soc. Lond., **24**, p. 71, 1856—part, Brazil (monog.); idem, Cat. Coll.

<sup>1</sup> Five specimens from the western Andes of Colombia (Pueblo Rico; San Antonio; west of Popayán) examined. Birds from Nariño (Barbacoas, Ricaurte) are stated by Chapman to form the transition to *S. a. canipennis*. An adult male from San Javier (alt. 60 ft.), Prov. Esmeraldas, Ecuador, combines the black pileum and mainly blackish inner tertials of *atripennis* with the large bill and pale crissum of *caniceps*, whereas an immature female from the same locality closely approaches the latter in coloration.

<sup>2</sup> *Saltator atripennis caniceps* Chapman: Similar to *S. a. atripennis*, but with larger, heavier bill; pileum extensively gray medially, only the forehead and lateral portions mottled with black; exposed parts of tertials frequently wholly olive-green; under tail coverts paler, less cinnameous.

Dr. Chapman has already called attention to the anomaly in distribution of the two races of the Black-winged Saltator. In fact, I am unable to see any essential difference between four specimens from Gualea, western Ecuador, and a single "Bogotá" skin.

Amer. Bds., p. 95, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 218, 1870—part, Rio de Janeiro (Sapitiba, Rio de Janeiro), São Paulo (Mattodentro, Ypanemá, Porto do Rio Paraná, Faz. Antonio Dias), and Goyáz (Goyáz City); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 419—Minas Geraes (Lagõa Santa, Sete Lagoas), São Paulo (Aráras, Capitão Mor), and Rio de Janeiro (Nova Friburgo); Pelzeln, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio de Janeiro; Cabanis, Journ. Orn., 22, p. 84, 1874—Cantagallo, Rio de Janeiro; Selater, Cat. Bds. Brit. Mus., 11, p. 287, 1886—part, spec. a-c, f h, Bahia, Minas Geraes (Santa Fé), and São Paulo, Brazil; Selater and Hudson, Arg. Orn., 1, p. 41, 1888—Rincon de Luna, Corrientes; Allen, Bull. Amer. Mus. N. H., 3, p. 365, 1891—Chapada, Matto Grosso (plumages; eggs descr.); Kerr, Ibis, 1892, p. 125—lower Pilcomayo, Paraguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 5, 1895—Colonia Risso, Paraguay; Ihering, Rev. Mus. Paul., 3, p. 156, 1899—São Paulo (Ypiranga, Rio Grande, Ribeirão Pires); idem, l.c., 4, p. 153, 1900—Nova Friburgo and Cantagallo; idem, Cat. Faun. Braz., 1, p. 370, 1907—São Paulo (Ypiranga, Cachoeira, Iguapé, Itararé, Avanhadava, Bebedouro) and Minas Geraes (Vargem Alegre); Hellmayr, Nov. Zool., 15, p. 31, 1908—Rio Araguaya, Goyáz (crit.); Hartert and Venturi, l.c., 16, p. 173, 1909—Posadas, Misiones, and Ocampo, Santa Fé; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 380, 1910—Ocampo (Chaco), Misiones, and Corrientes; Grant, Ibis, 1911, p. 95—Formosa (Colonia Mihanovitch) and Matto Grosso (Pão d'Açúcar); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1113, 1912—Bahia to São Paulo and Matto Grosso, Argentina; Bertoni, Faun. Parag., p. 64, 1914—Paraguay; Serié and Smyth, El Hornero, 3, p. 53, 1923—Santa Elena, Entre Ríos (breeding).

*Tanagra superciliaris* (not of Spix) Wied, Beitr. Naturg. Bras., 3, (1), p. 518, 1830—Campo Geral of Brazil=boundary of Bahia and Minas Geraes (cf. Allen, Bull. Amer. Mus. N. H., 2, p. 221, 1889).

*Saltator superciliaris* Burmeister, Syst. Uebers. Th. Bras., 3, p. 200, 1856—Minas Geraes to Bahia and Paraguay; White, Proc. Zool. Soc. Lond., 1882, p. 597—Santo Tomé, Corrientes.

*Saltator similis pallidiventris* Berlepsch, Zeits. Ges. Orn., 2, p. 121, 1885—Bahia, Brazil (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined).

*Saltator similis similis* Hellmayr, Verh. Orn. Ges. Bayern, 12, p. 133, 1915—Victoria, Espirito Santo (crit.); idem, Nov. Zool., 32, p. 8, 1925—Corrientes (note on type, range); Wetmore, Bull. U. S. Nat. Mus., 133, p. 395, 1926—Chaco (Resistencia, Las Palmas) and Paraguay (west of Puerto Pinasco); Holt, Bull. Amer. Mus. N. H., 57, p. 316, 1928—Serra do Itatiaia, São Paulo; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 238, 1930—San José, Chiquitos, Bolivia; Naumburg, Bull. Amer. Mus. N. H., 60, p. 350, 1930—Matto Grosso.

*Saltator maximus* (not *Tanagra maxima* P. L. S. Müller) Ihering, Rev. Mus. Paul., 5, p. 266, 1902—Iguapé, São Paulo.

*Saltator* [sic] *pallidiventris* Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—"Porto Real," Brazil.

*Range*.—Brazil, from Bahia south to São Paulo, west through Minas Geraes and Goyáz to Matto Grosso and the adjacent parts of Bolivia (San José, Chiquitos); Paraguay; northeastern Argentina, in territories of Formosa and Chaco, and in provinces of Santa Fé, Entre Ríos, Corrientes, and Misiones.<sup>1</sup>

16: Brazil (Macaco Secco, Bahia, 3; Veadeiros, Goyáz, 2; Rio São Miguel, Goyáz, 1; Rio das Velhas, Minas Geraes, 5; Chapada, Matto Grosso, 3; Urucúm de Corumbá, Matto Grosso, 1; Araçatuba, São Paulo, 1).

***Saltator similis ochraceiventris* Berlepsch.<sup>2</sup> OCHRACEOUS-BELLIED SALTATOR.**

*Saltator similis ochraceiventris* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1114, Feb., 1912—Taquara, Rio Grande do Sul, Brazil (type in coll. of H. von Berlepsch, now in Frankfort Museum, examined).

*Saltator similis* (not of Lafresnaye and d'Orbigny) Pelzeln, Orn. Bras., 3, p. 218, 1870—part, Curytiba, Paraná; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 121, 1885—Taquara and Arroyo Grande, Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 287, 1886—part, spec. d, e, "Pelotas," Rio Grande do Sul; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 120, 1899—Mundo Novo and Pedras Brancas, Rio Grande do Sul; idem, Cat. Faun. Braz., 1, p. 370, 1907—part, Rio Grande do Sul and Santa Catharina.

*Range*.—Brazil, from Paraná to Rio Grande do Sul.

**\**Saltator coerulescens grandis* (Lichtenstein).<sup>3</sup> LICHTENSTEIN'S SALTATOR.**

<sup>1</sup> The type of *S. s. pallidiventris* and specimens from Minas Geraes, Goyáz, and Matto Grosso, in coloration of the under parts are inseparable from an Argentine series (typical *similis*); an adult male from the Arroyo Verde, near Encarnación, Paraguay, is also typical of this form. Birds from Espírito Santo, Rio de Janeiro, and São Paulo, as a rule are slightly darker buffy underneath, though various individuals agree with those of more northern origin. While somewhat intermediate to *ochraceiventris*, they are much nearer to the typical race.

*Additional material examined*.—Argentina: Corrientes, 1 (the type); Ocampo, Santa Fé, 2; Posadas, Misiones, 1.—Paraguay: Arroyo Verde, Encarnación, 1.—Brazil: Bahia, 3; Campanha, Minas Geraes, 1; Leopoldina, Rio Araguaya, Goyáz, 3; Matto Grande, Goyáz, 1; Goyáz City, 2; Cuyabá, Matto Grosso, 3; Victoria, Espírito Santo, 2; Petropolis, Rio de Janeiro, 2; Antonio Dias, São Paulo, 1; Rio Paraná, São Paulo, 1; Mattodentro, São Paulo, 1; Ypanemá, São Paulo, 1; Itatiba, São Paulo, 2.

<sup>2</sup> *Saltator similis ochraceiventris* Berlepsch: Similar to *S. s. similis*, but under parts much deeper, more ochraceous, especially on abdomen and crissum.

Specimens from Santa Catharina resemble those from Rio Grande do Sul, while one from Paraná stands between the two races, rather nearer *ochraceiventris*.

*Material examined*.—Rio Grande do Sul: Taquara do Mundo Novo, 4; Arroyo Grande, 1.—Santa Catharina: Laguna, 2.—Paraná: Curytiba, 1.

<sup>3</sup> The differences between the *grandis* group and the South American *S. coerulescens* and allies being merely of quantitative nature, I do not see any reason for keeping them specifically distinct.

*Saltator icteropyga* Du Bus (Esq. Orn., livr. 3, pl. 13, 1847) from "Mexico" appears to have been based upon an artifact, composed of the body of *S. grandis*

*Tanagra grandis* Lichtenstein, Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, 1830—Mexico (type, from Jalapa, in Berlin Museum); Cabanis, Journ. Orn., 11, p. 57, 1863 (reprint).

*Saltator grandis* Sclater, Proc. Zool. Soc. Lond., 24, p. 72, 1856—southern Mexico (Jalapa, Orizaba, vicinity of Córdoba) and Guatemala (monog.); idem, l.c., 25, p. 205, 1857—Córdoba; Moore, l.c., 27, p. 58, 1859—Omoa, Honduras; Sclater, l.c., 27, pp. 364, 377, 1859—Jalapa, Vera Cruz, and Playa Vicente, Oaxaca, Mexico; idem, Cat. Coll. Amer. Bds., p. 96, 1862—Orizaba, Mexico; idem, Proc. Zool. Soc. Lond., 1864, p. 174—Valley of Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 549, 1869—hot and temperate region of Vera Cruz; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—San Pedro, Honduras; Lawrence, Bull. U. S. Nat. Mus., 4, p. 19, 1876—Santa Efigenia, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 328, 1884—part, Mexico (Tepitongo, Villa Maria, Vera Cruz, Córdoba, Jalapa, Playa Vicente, Santa Efigenia, Tonalá) and Honduras (San Pedro, Omoa); Sclater, Cat. Bds. Brit. Mus., 11, p. 288, 1886—part, spec. a-g, m, n, Mexico (Orizaba; Tonalá, Chiapas) and Honduras (San Pedro); Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 141, 1886—Jalapa, Mexico; Ridgway, l.c., 10, p. 586, 1887—Segovia River, Honduras; Richmond, l.c., 16, p. 491, 1893—Bluesfields, San Carlos and Rio Escondido, Nicaragua; idem, l.c., 18, p. 631, 1896—Alta Mira, Tamaulipas; Chapman, Bull. Amer. Mus. N. H., 10, p. 28, 1898—Jalapa, Mexico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 666, 1901—part, southeastern Mexico (excl. of Yucatan), Honduras, and Nicaragua; Bangs, Bull. Mus. Comp. Zool., 39, p. 156, 1903—Ceiba, Honduras; Carriker, Ann. Carnegie Mus., 6, p. 875, 1910—part, Carrillo and (?) Juan Viñas, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1114, 1912—part, Mexico, Honduras (San Pedro, Omoa), and Nicaragua (Rio Escondido); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 485, 1927—Presidio, Vera Cruz; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 340, 1932—Honduras (Omoa, San Pedro).

*Saltator icterophrys* Lafresnaye, Rev. Zool., 7, p. 41, 1844—Mexico (descr. of young; type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 376, 1930); Bonaparte, Consp. Gen. Av., 1, (2), p. 490, 1850—Villa Maria, Mexico.

*Saltator grandis grandis* Griscom, Bull. Amer. Mus. N. H., 64, p. 354, 1931—Finca Chamá and La Primavera, Guatemala; van Rossem, Trans. San Diego Soc. N. H., 7, p. 24, 1931—Atlantic slope of Mexico to Costa Rica.

*Saltator nigrigenis* Sclater, Proc. Zool. Soc. Lond., 24, p. 72, 1856—substitute name for *Tanagra grandis* Lichtenstein.

**Range.**—Tropical zone of the Atlantic slope of southeastern Mexico (from southern Tamaulipas southwards, exclusive of the Yucatan Peninsula), British Honduras, Guatemala, Honduras, Nicaragua, and Costa Rica (Carrillo).<sup>1</sup>

and the tail of *Ptilogonys cinereus*, as intimated by Lafresnaye (cf. Bonaparte, Consp. Gen. Av., 1, p. 490, 1850), though Hartlaub (Journ. Orn., 2, p. 255, 1854) strongly opposed this view. Cf. also Sclater, Proc. Zool. Soc. Lond., 24, p. 70, 1856.

<sup>1</sup>No material is available from eastern Costa Rica. Griscom refers five specimens to *grandis*, but van Rossem states that the single bird seen by him



4: Mexico (Tampico, Tamaulipas, 1; Jalapa, Vera Cruz, 1; unspecified, 1); Costa Rica (Orósi, 1).

**\*Saltator coerulescens yucatanensis** Berlepsch.<sup>1</sup> BERLEPSCH'S SALTATOR.

*Saltator grandis yucatanensis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1114, 1146, 1912—Mérida, Yucatan, Mexico (type in coll. of H. von Berlepsch, now in Frankfurt Museum); van Rossem, Trans. San Diego Soc. N. H., 7, p. 24, 1931—Yucatan Peninsula.

*Saltator grandis* (not *Tanagra grandis* Lichtenstein) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 200, 1869—Mérida, Yucatan; Boucard, Proc. Zool. Soc. Lond., 1883, p. 443—Mérida; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 328, 1884—part, Mérida, Yucatan; Sclater, Cat. Bds. Brit. Mus., 11, p. 288, 1886—part, spec. i, j, northern Yucatan; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 209—Tuncas, Sitalpech, and Ticul, Yucatan; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 666, 1901—part, Yucatan; (?) Griscom, Amer. Mus. Novit., 235, p. 17, 1926—Chunyaxche, Yucatan.

(?) *Saltator grandis grandis* Peters, Auk, 30, p. 379, 1911—Xcopen, Quintana Roo.

*Range*.—Yucatan Peninsula, Mexico.

1: Mexico (Mérida, Yucatan, 1).

**\*Saltator coerulescens vigorsii** G. R. Gray. VIGORS'S SALTATOR.

*Saltator rufiventris* (not of Lafresnaye and d'Orbigny, 1837) Vigors, Zool. Capt. Beechey's Voy., p. 19, 1839—no locality indicated (the type, which has disappeared, doubtless came from one of the ports on the west coast of Mexico, Acapulco, San Blas, or Mazatlan).<sup>2</sup>

*Saltator vigorsii* G. R. Gray (and Mitchell), Genera of Bds., 2, p. 363, 1844—new name for *Saltator rufiventris* Vigors.

*Saltator plumbiceps* (Baird MS.) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 477, May, 1867—Mazatlan, Sinaloa, Mexico (type in U. S. National Museum); idem, Mem. Bost. Soc. N. H., 2, p. 274, 1874—Mazatlan, Tepic, and plains of Colima, Mexico (nest and eggs descr.); Lantz, Trans. Kansas Acad. Sci., 16, p. 223, 1899—Limoncito, Sinaloa; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 668, 1901—western Mexico (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 364, 1905—Escuinapa and Juanna

(from the Atlantic drainage of the Continental Divide near Cartago) is exactly intermediate between *grandis* and *brevicaudus*. The Orósi bird listed here has not been examined by the author.

<sup>1</sup> *Saltator coerulescens yucatanensis* Berlepsch: Nearest to *S. c. grandis*, but underneath decidedly paler; the breast much lighter gray passing into buffy white posteriorly; flanks and lower tail coverts buffy rather than ochraceous. Size about the same.

Nine specimens, all from the northern parts of Yucatan Peninsula, examined.

<sup>2</sup> Cf. van Rossem, Trans. San Diego Soc. N. H., 7, p. 23, 1931, with whose conclusions regarding the applicability of Vigors's description we thoroughly agree.

Gomez River, Sinaloa; Bailey, Auk, **23**, p. 390, 1906—Tepic; McLellan, Proc. Calif. Acad. Sci., (4), **17**, p. 46, 1927—San Blas, Nayarit.

*Saltator francescae* (Grayson MS.) Lawrence, Mem. Bost. Soc. N. H., **2**, p. 274 (in text), 1874—Mazatlan and Tepic (descr. of young).

*Saltator plumbeiceps* Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 329, 1884—Sinaloa (Mazatlan, Presidio), Colima, and Oaxaca (Putla); Sclater, Cat. Bds. Brit. Mus., **11**, p. 289, 1886—Mazatlan, Presidio, and Putla; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1115, 1912—western Mexico, from Sinaloa to Oaxaca.

*Saltator grandis vigorsii* van Rossem, Trans. San Diego Soc. N. H., **7**, p. 24, 1931—western Mexico (Sinaloa to Oaxaca); Griscom, Bull. Mus. Comp. Zool., **75**, p. 415, 1934—Coyuca, Guerrero.

*Range*.—Tropical zone of western Mexico, from Sinaloa (Mazatlan, Presidio, Limoncito, Escuinapa, Juanna Gomez River) through Durango (Chacala), Jalisco (San Sebastian), Colima (Colima), Guerrero (Coyuca), and Nayarit (Tepic, San Blas) to Oaxaca (Putla).<sup>1</sup>

6: Mexico (Colima, 6).

**\*Saltator coerulescens hesperis** Griscom.<sup>2</sup> WESTERN SALTATOR.

*Saltator grandis hesperis* Griscom, Amer. Mus. Novit., **438**, p. 8, Dec. 15, 1930—San José, Guatemala (type in coll. of J. Dwight, now in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., **64**, p. 354, 1932—Pacific Guatemala (San Lucas, Panajachel, Lake Amatitlan, Antigua, San Felipe, Hacienda California, Finca El Cipres, Finca El Espino, Ocos, San José); van Rossem, Trans. San Diego Soc. N. H., **7**, p. 24, 1931—Pacific slope of Guatemala, El Salvador and Nicaragua.

*Saltator grandis* (not *Tanagra grandis* Lichtenstein) Sclater and Salvin, Ibis, 1859, p. 14—Dueñas, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 328, 1884—part, Guatemala (Escuintla, Retalhuleu, Savanna Grande, Dueñas); Nutting, Proc. U. S. Nat. Mus., **6**, p. 382, 1883—Sucuyá, Nicaragua; Sclater, Cat. Bds. Brit. Mus., **11**, p. 288, 1886—part, spec. k, l, t, Guatemala (Dueñas) and Nicaragua; Lantz, Trans. Kans. Acad. Sci., **16**, p. 223, 1899—Naránjo, Guatemala; Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 666, 1901—part, west Guatemalan and Nicaraguan references; Dearborn, Field Mus. Nat. Hist., Orn. Ser., **1**, p. 120, 1907—San

<sup>1</sup> Van Rossem (Bull. Brit. Orn. Cl., **58**, p. 124, July 13, 1938) has lately subdivided this race, restricting *S. c. vigorsii* to Sinaloa and Nayarit, with Mazatlan as type locality, and separating as *S. grandis richardsoni* the inhabitants of southwestern Mexico (from Jalisco to Guerrero and Oaxaca).

<sup>2</sup> *Saltator coerulescens hesperis* Griscom: Similar to *S. c. grandis*, but on average larger and of darker coloration; under parts with the dusky area on chest and breast darker as well as more extensive, and the buffy abdominal zone correspondingly more restricted; whitish gular patch smaller; dorsal surface slightly more slaty; white superciliary streak narrower and less protracted posteriorly. Wing (male), 102–109.

Specimens from western Nicaragua (Managua and Rivas) agree with a Guatemalan series.

Nineteen skins examined.

José, Lake Amatitlan, and Patulúl, Guatemala; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1114, 1912—part, Guatemala (Dueñas, Retalhuleu) and Nicaragua (Sucuyá).

*Range*.—Tropical zone of Pacific Guatemala, El Salvador, and Nicaragua.

17: Guatemala (Lake Amatitlan, 1; Patulúl, Sololá, 3; San José, Escuintla, 3); Nicaragua (San Gerónimo, Chinandega, 10).

***Saltator coerulescens brevicaudus* van Rossem.<sup>1</sup> SHORT-TAILED SALTATOR.**

*Saltator grandis brevicaudus* van Rossem, Trans. San Diego Soc. N. H., 7, p. 22, Oct. 6, 1931—Aranjuez, Puntarenas, Costa Rica (type in coll. of Donald R. Dickey, Pasadena).

*Saltator grandis* (not *Tanagra grandis* Lichtenstein) Cabanis, Journ. Orn., 8, p. 416, 1860; idem, l.c., 9, p. 1, 1861—Costa Rica (crit.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 102, 1868—San José and Cartago, Costa Rica; Frantzius, Journ. Orn., 17, p. 300, 1869—highlands of Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 328, 1884—part, Costa Rica (San José, Cartago, Tempate); Sclater, Cat. Bds. Brit. Mus., 11, p. 288, 1886—part, spec. o-s, Costa Rica (Irazú, San José, Tempate, Cartago); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Costa Rica (Alajuela, Cartago, San José); Cherrie, Auk, 9, p. 27, 1892—San José, Costa Rica (habits, nest, eggs, and young); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 667, 1901—part, Costa Rica (San José, Cartago, Alajuela, Tempate); Carriker, Ann. Carnegie Mus., 6, p. 875, 1910—part, Costa Rica (Alajuela, San José, Coralsillo, Tierra Blanca); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1114, 1912—part, Costa Rica (San José, Irazú, Cartago).

*Range*.—Pacific slope of Costa Rica, ranging from Guanacaste to Puntarenas.

**\**Saltator coerulescens plumbeus* Bonaparte.<sup>2</sup> PLUMBEOUS SALTATOR.**

<sup>1</sup> *Saltator coerulescens brevicaudus* van Rossem: Very similar to *S. c. hesperis*, but smaller, with proportionately as well as actually much shorter tail, and upper parts slightly darker, more plumbeous, with less olivaceous tinge on rump and tail coverts. Wing, 98–102, (female) 95–99; tail, 92–96, (female) 90, 91.

Five specimens from San Isidro de Coronado (near San José) are undoubtedly referable to *brevicaudus*, though two (of the males) have the wing and tail a few millimeters longer than in (two) birds from Nicoya. A single female (with remains of immaturity) from Tres Rios (near Cartago) cannot be separated either, its dimensions (wing, 92; tail, 90) falling within the variation of *brevicaudus*. It would thus seem that the short-tailed race ranges up to the central highlands of Costa Rica, and that *grandis* is found only on the Caribbean slope of the Continental Divide.

<sup>2</sup> *Saltator coerulescens plumbeus* Bonaparte: Similar to *S. c. olivascens*, of the Guianas, but upper parts and sides of the head decidedly paler olive gray; the white superciliaries much reduced or even obsolete; the throat whiter, less buffy; the blackish maxillary stripe less developed; the flanks and under tail coverts paler buffy. Wing, 96–102; tail, 89–93.

*Additional material examined*.—Colombia: Bonda, 3; Santa Marta, 4.

*Saltator plumbeus* Bonaparte, Comp. Rend. Acad. Sci. Paris, 37, No. 25, p. 923, Dec., 1853—"Sainte Marthe, en Colombie" (location of type not stated); idem, Not. Orn. Coll. Delattre, p. 23, 1854 (reprint).

*Saltator olivascens* (not of Cabanis) Sclater, Proc. Zool. Soc. Lond., 24, p. 71, 1856—part, Santa Marta;<sup>1</sup> idem, l.c., 25, p. 19, 1857—"Bogotá"; idem, Cat. Coll. Amer. Bds., p. 95, 1862—part, spec. b, "Bogotá"; Wyatt, Ibis, 1871, p. 327—Santa Marta; Salvin and Godman, Ibis, 1880, p. 121—Santa Marta; Sclater, Cat. Bds. Brit. Mus., 11, p. 289, 1886—part, spec. h-1, Colombia (Santa Marta, "Bogotá"); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1115, 1912—part, Colombia (Santa Marta, "Bogotá"); Chapman, Bull. Amer. Mus. N. H., 36, p. 562, 1917—La Playa, Calamar, and Algodonal, Magdalena River, and Sinú River, Bolívar, Colombia.

*Saltator olivaceus* (lapsu) Allen, Bull. Amer. Mus. N. H., 13, p. 167, 1900—Bonda and Santa Marta; idem, l.c., 21, p. 291, 1905—Bonda (nest and eggs descr.).

*Saltator mutus*(?) (not of Sclater) Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 140—Mount Popa, near Cartagena, Colombia.

*Saltator olivascens plumbeus* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 91, 1918—Santa Marta (diag.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 503, 1922—Santa Marta, Cautilito, Bonda, Cienaga, Tucurínca, Fundación, Matatoco, Dibulla, Rio Hacha, and La Tigra, Colombia; Darlington, Bull. Mus. Comp. Zool., 71, p. 419, 1931—Rio Frio and Santa Marta.

*Range*.—Tropical zone of northern Colombia, from the Sinú River, Bolívar, east to the lower Magdalena and north to the Santa Marta region.

2: Colombia (Tucurínca, Magdalena, 1; Fundación, Magdalena, 1).

**\**Saltator coerulescens brewsteri* Bangs and Penard.<sup>2</sup> BREWSTER'S SALTATOR.**

<sup>1</sup> Sclater's statement that Bonaparte's type is in his collection must be a mistake, no Santa Marta specimen being listed either in the "Catalogue of the Collection of American Birds belonging to P. L. Sclater" or in the British Museum Catalogue. It is not in the Paris Museum either, as I have recently ascertained.

<sup>2</sup> *Saltator coerulescens brewsteri* Bangs and Penard: Exceedingly similar to *S. c. plumbeus*, but with the white superciliaries much more developed and extended forward to the base of the culmen.

Birds from Trinidad, when compared to *olivascens* of the Guianas, have paler olive gray upper parts and sides of the head, and the white superciliaries are more conspicuous, particularly above the loreal region. The under tail coverts are variable in tone, in most cases about as dark as in *olivascens*, but sometimes very nearly as pale as in *plumbeus*. The inhabitants of Venezuela, while somewhat intermediate, appear to me referable to *brewsteri* rather than to *olivascens*. Birds from the Cumaná region, at all events, are exceedingly close to those of Trinidad. In the coloration of the upper and under parts they are identical with the island birds, and the only divergency I can find is the narrower superciliary streak, which is, however, always more pronounced than in Guianan specimens. The few adults available from the Orinoco Valley have the superciliaries, especially in

*Saltator olivascens brewsteri* Bangs and Penard, Bull. Mus. Comp. Zool., **62**, p. 91, April, 1918—Caparo, Trinidad (type in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 376, 1930).

*Saltator olivascens* (not of Cabanis) Selater, Proc. Zool. Soc. Lond., **24**, p. 71, 1856—part, Venezuela (Cumaná) and Trinidad; idem, Cat. Coll. Amer. Bds., p. 95, 1862—part, spec. a, c, Trinidad and Venezuela; Taylor, Ibis, 1864, p. 83—Chacachacare and Monos Islands, near Trinidad; Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Carúpano, Venezuela; Selater, Cat. Bds. Brit. Mus., **11**, p. 289, 1886—part, spec. a-g, Trinidad and Venezuela (Carúpano); Chapman, Bull. Amer. Mus. N. H., **6**, p. 32, 1894—Princes-town, Trinidad; Phelps, Auk, **14**, p. 364, 1897—Cumaná and Cumanacoa, Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., **24**, p. 176, 1901—San Julián, near La Guaira, Venezuela; Berlepsch and Hartert, Nov. Zool., **9**, p. 23, 1902—Altagracia, Caicara, and Ciudad Bolívar, Orinoco, Venezuela; Hellmayr, l.c., **13**, p. 18, 1906—Caparo, Valencia, and Secelet, Trinidad; Cherrie, Sci. Bull., Mus. Brookl. Inst., **1**, p. 359, 1908—Pointe Gourde and Carenage, Trinidad; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1115, 1912—part, Trinidad and Venezuela; Stone, Proc. Acad. Nat. Sci. Phila., **65**, p. 209, 1913—Guinipa Village and La Pedrita (Rio Urocoa), Orinoco delta, Venezuela; Cherrie, Sci. Bull., Mus. Brookl. Inst., **2**, p. 200, 1916—Orinoco Valley from the delta region to the mouth of the Rio Meta.

*Saltator olivaceus* (lapsu) Allen, Bull. Amer. Mus. N. H., **4**, p. 52, 1892—El Pilar, Venezuela.

*Saltator icterophrys* (not of Lafresnaye) Léotaud, Ois. Trinidad, p. 285, 1866—Trinidad.

*Saltator coerulescens brewsteri* Roberts, Trop. Agric., **11**, p. 99, 1934—Trinidad.

*Range*.—Island of Trinidad, including Monos and Chacachacare Islands, and Venezuela (from the north coast south to the Orinoco Valley).

22: Venezuela (Encontrados, Zulia, 8; Catatumbo River, Zulia, 3; Rio Aurare, Zulia, 2; Puerto Cabello, Carabobo, 2; Maracay, Aragua, 5; Cocollar, Sucre, 2).

**\*Saltator coerulescensolivascens** Cabanis. OLIVASCENT SALTATOR.

*Saltator olivascens* Cabanis, in Schomburgk, Reisen Brit. Guiana, **3**, "1848," p. 676, pub. early in 1849—British Guiana (type in Berlin Museum); Bonaparte, Consp. Gen. Av., **1**, (2), p. 490, 1850—Guiana; Selater, Proc. Zool. Soc. Lond., **24**, p. 71, 1856—part, Cayenne and British Guiana; Bonaparte, Bull. Soc. Linn. Normandie, **2**, p. 30, 1857—Cayenne; Pelzeln, Orn. Bras., **3**, p. 218, 1870—Forte do Rio Branco, Brazil (spec. examined;=young); Salvin, Ibis, 1885, p. 213—"Roraima" (ex Schomburgk); Selater, Cat.

front of the eye, just as wide as in the average from Trinidad, so that for the present I cannot but call them *brewsteri*.

*Additional material examined*.—Trinidad: Caparo, 8; Carenage, 1; Icacos, 1.—Venezuela: Carúpano, 3; Cumaná, 5; Yacua, Paria Peninsula, 1; Ciudad Bolívar, Orinoco, 3; Altagracia, Orinoco, 2; Caicara, Orinoco, 2.

Bds. Brit. Mus., 11, p. 289, 1886—part, Guiana; Penard, Vog. Guyana, 2, p. 462, 1910—Surinam (eggs descr.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1115, 1912—part, British Guiana ("Roraima"), Surinam, and Cayenne; Chubb, Bds. Brit. Guiana, 2, p. 452, 1921—upper Takutu Mountains, Ituribisci River, Supenaam, Bonasika River, Abary River, and "Roraima."

*Saltator plumbeus* (not of Bonaparte) Pelzeln, Orn. Bras., 3, p. 218, 1870—Forte do Rio Branco, Brazil (spec. examined).

*Saltator olivascens olivascens* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 91, 1918—vicinity of Paramaribo and Lelydorp, Surinam.

(?) *Saltator coerulescens* (not of Vieillot) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 676, 1849—British Guiana; Salvin, Ibis, 1885, p. 213 (ex Cabanis).

*Range.*—French, Dutch, and British Guiana, and the adjacent districts of extreme northern Brazil (upper Rio Branco).<sup>1</sup>

3: British Guiana (Georgetown, 2; unspecified, 1).

### ***Saltator coerulescens mutus* Sclater.<sup>2</sup> SCLATER'S SALTATOR.**

*Saltator mutus* Sclater, Proc. Zool. Soc. Lond., 24, p. 72, 1856—"North Brazil, Lower Amazon, island of Mexiana" (type, from Mexiana, in coll. of P. L. Sclater, now in the British Museum, examined<sup>3</sup>); idem, Cat. Coll. Amer. Bds., p. 96, 1862—Mexiana; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 572—Mexiana; Snethlage, Journ. Orn., 56, p. 523, 1908—Arumatheua, Rio Tocantins.

*Saltator superciliaris* (not *Tanagra superciliaris* Spix) Cabanis, Mus. Hein., 1, p. 142, 1851—part, northern Brazil; Sclater, Cat. Bds. Brit. Mus., 11, p. 291, 1886—part, spec. a-c, Mexiana; Goeldi, Ibis, 1897, p. 161—Amapá, northern Pará (spec. examined); Hagmann, Zool. Jahrb. (Syst.), 26, p. 27, 1907—Mexiana; Snethlage, Journ. Orn., 55, p. 295, 1907—Pará, Rio Mojú, Mexiana, Marajó, and Amapá.

<sup>1</sup> *Additional material examined.*—French Guiana: Cayenne, 1.—Dutch Guiana: vicinity of Paramaribo, 3.—British Guiana: Demerara, 3.—Brazil: Forte do São Joaquim, Rio Branco, 3.

<sup>2</sup> *Saltator coerulescens mutus* Sclater: Similar to *S. c. azarae* in plumbeous upper parts and clear gray breast, but distinguished by much paler, buffy instead of ochraceous under tail coverts. Wing, (male) 103–108, (female) 96–100; tail, 92–99, (female) 86–93.

The much paler under tail coverts serve to distinguish *mutus* from its upper Amazonian ally without difficulty. Besides, the pileum and back are, as a rule, of a slightly paler plumbeous tone, occasionally shaded with olivaceous on the rump, and the breast is on average rather lighter gray. From *S. c. olivascens*, the present form may be separated at a glance by the much darker, plumbeous instead of light olive gray dorsal surface; pure white, not buffy throat; clear gray breast without any buffy suffusion, etc. A single adult from Amapá, in northern Pará, is perfectly identical with others from the estuary of the Amazon.

*Material examined.*—Brazil, Pará: Amapá, 1; Mexiana Island, 7; Camolins, Marajó, 1; Tuyuyú, Marajó, 1; "Pará," 1.

<sup>3</sup> Although the type is credited to the Berlin Museum, Sclater expressly states that his description was based on "one of the specimens collected by Mr. Wallace in the neighborhood of Pará" [= Mexiana], which thus becomes the type.

*Saltator coerulescens mutus* Ihering, Cat. Faun. Braz., 1, p. 371, 1907—Santarém, Rio Tapajóz; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 103, 119, 1912—Fazenda Nazareth, Mexiana (crit.); idem, Nov. Zool., 32, p. 6, 1925 (range); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Pará.

*Saltator azarae mutus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1116, 1912—lower Amazon (Pará, Mexiana, Amapá); Snethlage, Bol. Mus. Goeldi, 8, p. 460, 1914—Pará, Rio Mojú, Rio Tocantins (Arumatheua), Marajó (São Natal, Pindobal), Mexiana, Amapá, Arumanduba, and Rio Jamundá (Faro), Brazil.

(?)*Saltator azarae matus* [sic] Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 61, 1926—São Bento, Maranhão (one young bird).

*Range.*—Northern Brazil, on the banks of the lower Amazon, from the vicinity of Pará west to the Rio Tapajóz and Rio Jamundá, north to Amapá in northern Pará.

**\**Saltator coerulescens azarae* d'Orbigny. AZARA'S SALTATOR.**

*Saltator azarae* d'Orbigny, Voyage Amér. Mérid., Ois., p. 287, 1839—part, descr. of male and hab. Moxos, Bolivia (type, from Moxos, in Paris Museum examined); Bonaparte, Consp. Gen. Av., 1, (2), p. 490, 1850—Bolivia (excl. of Santa Cruz); Sclater, Proc. Zool. Soc. Lond., 24, p. 73, 1856—part, Moxos, Bolivia; idem, l.c., 26, p. 72, 1858—Rio Napo, Ecuador; idem, Cat. Coll. Amer. Bds., p. 96, 1862—Rio Napo; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 181—Rio Ucayali, Peru; idem, l.c., 1867, p. 977—Pebas, Peru; idem, l.c., 1869, p. 597—Cosnipata, Dept. Cuzco, Peru; Pelzeln, Orn. Bras., 3, p. 219, 1870—part, Borba, Rio Madeira (spec. examined); Taczanowski, Orn. Pér., 2, p. 540, 1884—Ucayali and Cosnipata, Peru; Snethlage, Journ. Orn., 56, p. 11, 1908—Rio Purús, Brazil; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1115, 1912—Upper Amazonia, from Colombia ("Bogotá") to northern Bolivia and western Brazil; Snethlage, Bol. Mus. Goeldi, 8, p. 460, 1914—Rio Purús.

*Saltator coerulescens* (not of Vieillot) Tschudi, Faun. Peru., Orn., p. 209, 1846—"coast region" of Peru, error; Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 16—Yurimaguas, Peru; idem, Orn. Pér., 2, p. 544, 1884—Peru ("coast region" [ex Tschudi], Yurimaguas, Lamas).

*Saltator superciliaris* (not *Tanagra superciliaris* Spix) Cabanis, Mus. Hein., 1, p. 142, 1851—part, Peru (ex Tschudi); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 263—Peru (Nauta, upper Ucayali, Pebas); Sclater, Cat. Bds. Brit. Mus., 11, p. 291, 1886—part, spec. d-n, Peru (upper Ucayali, lower Ucayali, Pebas, Cosnipata), Ecuador (Rio Napo, Sarayacu, "Jima"), and Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—Falls of the Madeira, Bolivia; Berlepsch, Journ. Orn., 37, p. 298, 1889—Tarapoto, Rio Huallaga, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 348—La Merced, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 21, 1899—Gualaquiza, Ecuador; Goodfellow, Ibis, 1901, p. 472—Coca, upper Napo, Ecuador; Ihering, Rev. Mus. Paul., 6, p. 432, 1905—Rio Juruá, Brazil (spec. examined).

*Saltator caerulescens azarae* Ihering, Cat. Faun. Braz., 1, p. 371, 1907—Rio Juruá (range); Chapman, Bull. Amer. Mus. N. H., 36, p. 563, 1917—eastern Colombia (Florencia, Villavicencio, Buena Vista); idem, Bull. U. S. Nat. Mus., 117, p. 110, 1921—Santa Ana, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 617, 1926—below San José, Ecuador.

*Saltator coerulescens azarae* Hellmayr, Nov. Zool., 17, p. 279, 1910—Calama, Rio Madeira; idem, l.c., 32, pp. 5, 6, 1925—Moxos, Bolivia (note on type; range); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 464, 1930—Rio Colorado, Chanchamayo, Peru.

*Range*.—Upper Amazonia, from the eastern base of the eastern Andes of Colombia south through eastern Ecuador and Peru to northeastern Bolivia (Falls of the Rio Madeira and Moxos, Dept. El Beni) and western Brazil, east to the Rio Madeira.<sup>1</sup>

7: Peru (Moyobamba, 5; Lagunas, 1; Rio Colorado, Chanchamayo Valley, 1).

### ***Saltator coerulescens superciliaris* (Spix).<sup>2</sup> SPIX'S SALTATOR.**

*Tanagra superciliaris* Spix, Av. Spec. Nov. Bras., 2, p. 44, pl. 57, 1825—"in campis fl. St. Francisci prope pagum Joazeiro," Bahia, Brazil (type in Munich Museum examined); Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 677, 1906 (crit.).

*Saltator caerulescens* (not of Vieillot) Ihering, Cat. Faun. Braz., 1, p. 371, 1907—part, Bahia; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1115, 1912—part, Joazeiro, Rio São Francisco, Bahia.

*Saltator superciliaris caerulescens* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 83, 1910—Bahia (Joazeiro; Fazenda Pedre Gulhu, Rio Grande) and Piauihy (Parnaguá and Lagõa Missão) (spec. examined).

*Saltator caerulescens superciliaris* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 183, 1925—same localities.

<sup>1</sup> Birds from Brazil agree well with others from Ecuador and Peru.

*Additional material examined*.—Colombia: "Bogotá," 2.—Ecuador: Coca, Rio Napo, 1; Sarayacu, 1; Jima, 1.—Peru: Iquitos, 1; Samiria, 1; Rio Ucayali, 2; Pebas, 2; La Merced, Chanchamayo, 3.—Brazil: Rio Juruá, 1; Calama, Rio Madeira, 1; Borba, Rio Madeira, 1.—Bolivia: Moxos, 3; unspecified, 2.

<sup>2</sup> *Saltator coerulescens superciliaris* (Spix), though synonymized with *S. c. coerulescens* in my account of Spix's types, is a recognizable form standing somewhat between *coerulescens*, of Paraguay and Matto Grosso, and *mutus*, of Lower Amazonia, as the study of a small series secured by Otmar Reiser at the type locality and in southern Piauihy tends to show. From *coerulescens* it differs by reason of smaller size (wing of adult females, 98–100, against 104–110; tail, 86–92, against 97–107); less olivaceous upper parts; slate gray (instead of olive-gray) sides of the head; pure white (not buffy) throat; pale gray (instead of olive grayish to buffy gray) breast, and much less extensive as well as paler buffy abdominal area. It is even nearer to, and closely resembles, *S. o. mutus* underneath, but may be distinguished by paler grayish foreneck and breast, while the upper parts are markedly lighter, slate gray rather than plumbeous, with a slight tinge of olive on rump and tail coverts.

*Material examined*.—Brazil: Joazeiro, Rio São Francisco, Bahia, 2; Fazenda Pedre Gulhu, Rio Preto, Bahia, 1; Parnaguá, Piauihy, 1; Lagõa Missão, near Parnaguá, Piauihy, 1.



*Saltator coerulescens superciliaris* Hellmayr, Nov. Zool., 32, p. 6, 1925—eastern Brazil (crit.); idem, Field Mus. Nat. Hist., Zool. Ser., 12, p. 291, 1929—interior of Bahia and Piauí (crit.).

*Range*.—Northeastern Brazil, in states of Bahia (Joazeiro, Rio São Francisco; Rio Grande) and Piauí (Parnaguá; Lagõa Missão).

**\**Saltator coerulescens coerulescens* Vieillot. GRAYISH SALTATOR.**

*Saltator coerulescens*<sup>1</sup> Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 105, 1817—based on “Habia ceja blanca” Azara, No. 81, Paraguay; Lafresnaye and d’Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 35, 1837—Corrientes, Argentina, and Santa Cruz de la Sierra, Bolivia (spec. in Paris Museum examined); d’Orbigny, Voy. Amér. Mérid., Ois., p. 287, 1839—Corrientes; Sclater, Proc. Zool. Soc. Lond., 24, p. 73, 1856—Paraguay and Corrientes (monog.); idem, Cat. Coll. Amer. Bds., p. 96, 1862—Bolivia; Burmeister, Syst. Uebers. Th. Bras., 3, p. 201, 1856—“in the south of Brazil, Santa Catharina, Rio Grande do Sul to São Paulo and westwards to the Cordilleras;”<sup>2</sup> idem, Journ. Orn., 8, p. 253, 1860—“Mendoza”<sup>3</sup> and Paraná (Entre Ríos); idem, Reise La Plata St., 2, p. 480, 1861—near Paraná (descr. of young); Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraró, Corrientes; Durnford, Ibis, 1878, p. 59—Baradero, northern Buenos Aires; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 603—Santa Cruz, Bolivia; Salvin, Ibis, 1880, p. 353—Salta; White, Proc. Zool. Soc. Lond., 1882, p. 597—Orán, Salta; Sclater, Cat. Bds. Brit. Mus., 11, p. 290, 1886—Argentina (Orán, Salta); Sclater and Hudson, Arg. Orn., 1, p. 42, 1888—Argentina (near Baradero, Orán, and Salta); Kerr, Ibis, 1892, p. 125—near Fortín Page, lower Pilcomayo; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 4, 1895—Corumbá, Matto Grosso; idem, l.c., 12, No. 292, p. 7, 1897—Caiza, Bolivia; idem, l.c., 15, No. 378, p. 4, 1900—Carandásinho and Urucú, Matto Grosso; Kerr, Ibis, 1901, p. 223—Villa Concepción and Paraguayan Chaco, Paraguay; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 176, 1902—Tucumán; Baer, Ornith., 12, p. 216, 1904—Santa Ana and Tapia, Tucumán; Lillo, Rev. Letr. y Cienc. Soc., 3, p. 42, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 371, 1907—part, Matto Grosso, Paraguay, and Argentina; Grant, Ibis, 1911, p. 94—Paraguay (Puerto Pinasco), Matto Grosso (Coimbrá), and Formosa (Colonia Mihanovitch); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1115, 1912—part, Matto Grosso, Paraguay, eastern Bolivia, and northern Argentina; Bertoni, Faun. Parag., p. 64, 1914—Paraguay; Serié and Smyth, El Hornero, 3, p. 53, 1923—Santa Elena, Entre Ríos; Dinelli, l.c., 3, p. 255, 1924—Tucumán (habits, nest, and eggs); Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 657, 1924—Baradero, Buenos Aires; Pereyra, El Hornero, 4, p. 33, 1927—Pueblo Brugo, Entre Ríos; Smyth, l.c., 4, p. 147, 1928—Santa Elena (eggs descr.).

*Tanager decumana* Lichtenstein, Verz. Doubl. Berliner Mus., p. 31, 1823—part, ex Azara, No. 81, Paraguay.

<sup>1</sup> Frequently spelt *caerulescens*.

<sup>2</sup> The Brazilian range as given by Burmeister is purely imaginary.

<sup>3</sup> Obviously a mistake, since the locality is not mentioned in the “Reise durch die La Plata Staaten.”

*Saltator azarae* d'Orbigny, Voy. Amér. Mérid., Ois., p. 287, 1839—part, "female," Santa Cruz de la Sierra, Bolivia (spec. in Paris Museum examined).

*Saltator fulviventris* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 41, June, 1864—Paraguay (descr. of young; type in U. S. National Museum examined); Berlepsch, Proc. U. S. Nat. Mus., 11, p. 564, 1888 (crit.); Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 7, 1897—San Lorenzo, Jujuy (spec. examined); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1115, 1146, 1912—Paraguay and Jujuy (San Lorenzo); Bertoni, Faun. Parag., p. 64, 1914—Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 356, 1914—Paraguay and Jujuy (San Lorenzo).

*Saltator coerulescens coerulescens* Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 677, 1906—part, Paraguay (Bernalcué) and Matto Grosso; Hartert and Venturi, Nov. Zool., 16, p. 173, 1909—Santa Fé (Ocampo, Mocoví) and Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 381, 1910 (range in Argentina); Ménégau, Rev. Franç. d'Orn., 5, p. 85, 1917—Poconé and Cáceres, Matto Grosso; Hellmayr, Nov. Zool., 32, pp. 5, 6, 1925—Corrientes and Bolivia (Santa Cruz de la Sierra) (crit., range); Wetmore, Bull. U. S. Nat. Mus., 133, p. 396, 1926—Las Palmas, Chaco; Friedmann, Bull. Mus. Comp. Zool., 68, p. 228, 1927—Concepción (Tucumán) and Bovril Islands (Entre Ríos); Naumburg, Bull. Amer. Mus. N. H., 60, p. 351, 1930—Matto Grosso (Descalvados, Agua Blanca de Corumbá, Rio São Lourenço, Fazenda do São João, Rio Cuyabá); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 239, 1930—Formosa (Lapango, Tacaaglé, Tapikiolé) and Bolivia (La Creencia, Santa Cruz); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 396, 1934—Descalvados, Matto Grosso.

*Range*.—Eastern Bolivia (in depts. of Santa Cruz and Tarija); southwestern Brazil (in State of Matto Grosso); Paraguay; north-eastern Argentina, from Jujuy and Formosa south to Santa Fé, Entre Ríos, and extreme northern Buenos Aires (Baradero).<sup>1</sup>

26: Brazil (Descalvados, Matto Grosso, 1); Argentina (Concepción, Tucumán, 22; Tucumán, Prov. Tucumán, 2); Bolivia (Buena Vista, Santa Cruz, 1).

### ***Saltator orenocensis orenocensis* Lafresnaye. ORINOCAN**

#### **SALTATOR.**

*Saltator orenocensis* Lafresnaye, Rev. Zool., 9, p. 274, 1846—"l'embouchure de l'Orénoque," Venezuela (cotypes in coll. of F. de Lafresnaye, now in

<sup>1</sup> Birds from eastern Bolivia (Santa Cruz), Matto Grosso, and Argentina agree with topotypical Paraguayan specimens. In fresh plumage, the under parts are strongly suffused with ochraceous, particularly on throat and belly, while worn individuals, through abrasion of the apical portions of the feathers, become almost grayish on the breast and superficially resemble *S. c. superciliaris*. Young birds with olive green dorsal surface and yellow superciliaries have been described as *S. fulviventris*.

*Additional material examined*.—Paraguay: island near Villa Concepción, 3; Bernalcué, near Asunción, 2; unspecified, 1.—Bolivia: La Creencia, Santa Cruz, 1; Santa Cruz, 1.—Brazil: Matto Grosso: Cuyabá, 6; Villa Bella de Matto Grosso,

Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 376, 1930; Bonaparte, Consp. Gen. Av., **1**, (2), p. 490, 1850—"Columbia" (ex Lafresnaye); Cabanis, Mus. Hein., **1**, p. 143, 1851—Venezuela; Sclater, Proc. Zool. Soc. Lond., **24**, p. 77, 1856—Angostura, Orinoco, and "Trinidad"; idem, Cat. Bds. Brit. Mus., **11**, p. 291, 1886—Angostura, Venezuela; Berlepsch and Hartert, Nov. Zool., **9**, p. 23, pl. 12, fig. 3, 1902 Altagracia, Ciudad Bolívar, and Caicara, Orinoco Valley, and San Felix [Bermúdez], Venezuela; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1116, 1912—Orinoco Valley; Todd, Ann. Carnegie Mus., **8**, p. 202 (in text), 1912 San Felix, lower Orinoco; Cherrie, Sci. Bull., Mus. Brookl. Inst., **2**, p. 200, 1916—along the Orinoco from the delta region (Las Barrancas) to Urbana, mouth of the Apure River, Venezuela (nest and eggs descr.).

*Range.*—Venezuela, in the valley of the Orinoco from the delta region to the mouth of the Apure River, extending in the northeast to Monagas (San Felix).<sup>1</sup>

**\*Saltator orenocensis rufescens Todd.<sup>2</sup> RUFESCENT SALTATOR.**

*Saltator orenocensis rufescens* Todd, Ann. Carnegie Mus., **8**, p. 201, 1912—Tocuyo, Lara, Venezuela (type in Carnegie Museum); Todd and Carriker, l.c., **14**, p. 504, 1922—Rio Hacha, La Goajira, Colombia (habits).

*Range.*—Arid Tropical zone of northwestern Venezuela (Tocuyo, Lara; Rio Aurare, Zulia) and extreme northeastern Colombia (La Goajira Peninsula).

1.—Argentina: Lapango, Formosa, 4; Ocampo, Santa Fé, 1; Mocoví, Santa Fé, 1; Tucumán, 2; San Lorenzo, Jujuy, 1.

<sup>1</sup> The typical race, as here understood, shows some local variation. Birds from San Felix (Monagas) diverge to the greatest degree from the intensely colored form (*rufescens*) in that the under surface, excepting the ochraceous sides and crissum, is entirely white, at best with a delicate buffy shade across the chest. Specimens from Altagracia and Caicara are more extensively washed with a deeper ochraceous along the sides, and this is even more pronounced in birds from Ciudad Bolívar, which have also the whole chest distinctly tinged with buff. The palest example from Caicara matches the San Felix series, whereas the darkest individuals from Ciudad Bolívar closely approach the lightest specimen of *rufescens* (Field Museum No. 43821) and differ from it merely by paler buffy chest. In the whole series there is, however, not one that has nearly so much ochraceous underneath as the dark-bellied variety of *rufescens* (e.g. Field Museum No. 49579).

There is no authentic record of the species from "Trinidad."

*Material examined.*—Monagas: San Felix, 8.—Orinoco Valley: Altagracia, 6; Ciudad Bolívar, 6; Caicara, 4.

<sup>2</sup> *Saltator orenocensis rufescens* Todd: Similar to *S. o. orenocensis*, but on average larger, with stouter bill, and under parts more strongly tinged with ochraceous or buffy-clay. This color is not only deeper in tone, but frequently invades also the middle of the abdomen, the latter being, in the typical race, more or less white in distinct contrast to the ochraceous sides and flanks. Although the coloration of the under parts as stated in the preceding note is somewhat variable in birds of the Orinoco Valley, *S. o. rufescens*, even in a small series, is noticeably darker. I do not find any difference between the two races in the development of the black streak bordering the white superciliaries. Wing, 93–96 (against 88–94); tail, 88–90 (against 82–89); bill, 18 (against 16–17).

3: Venezuela (Rio Aurare, Zulia, 2; Empelado Savanna, east of Maracaibo, Zulia, 1).

### **Saltator maxillosus** Cabanis.<sup>1</sup> THICK-BILLED SALTATOR.

*Saltator maxillosus* Cabanis, Mus. Hein., 1, p. 142 (note), October, 1851—"Montevideo," errore=southern Brazil<sup>2</sup> (descr. of immature specimen; type in Berlin Museum examined); Sclater, Proc. Zool. Soc. Lond., 24, p. 74, 1856—"Montevideo" (crit. note on type); idem, Cat. Coll. Amer. Bds., p. 96, 1862—Brazil; Sclater, Cat. Bds. Brit. Mus., 11, p. 287, 1886—Brazil; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 487, 499, 1912—Vera Guarany, Rio Iguassú, Paraná, Brazil; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1116, 1912—Rio de Janeiro ("Nova Friburgo") and São Paulo (Serra, near Itararé); Dabbene, Bol. Soc. Physis, 1, p. 356, 1914—Alto Paraná and Misiones; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 188, 1926—Paraná (Fazenda Concordia, Fazenda Firmiano, Fazenda Ferreira, Banhados, Cará Pintada).

*Saltator gularis* (Lafresnaye MS.) Sclater,<sup>3</sup> Proc. Zool. Soc. Lond., 24, p. 74, 1856—"Montevideo"—Brazil (descr. of adult; type in coll. of F. de Lafres-

<sup>1</sup> *Saltator maxillosus* Cabanis, though nearly allied to *S. aurantirostris*, may be recognized by its differently shaped bill. This organ is shorter and stouter, the maxilla strongly inflated below the nostrils, and the mandible swollen at the base. In color, the bill is mainly dusky or blackish, with an orange yellow patch on each side below the nostrils, and smaller spots of the same color at the base of the lower mandible. In general coloration of plumage, the Thick-billed Saltator is not unlike its ally, but differs by having the white superciliaries extended forward to the base of the culmen, and by lacking the black gorget below the throat, as well as all trace of the white tips to the lateral rectrices. In the adult stage, the upper parts are slate gray, slightly tinged with olive on middle and lower back; wings and tail blackish, externally edged with olive gray; sides of the head blackish (the auriculars slightly shaded with olive) surmounted by long white superciliaries; throat ochraceous-buff, passing into whitish on the chin, bounded laterally by a broad black malar stripe; remainder of under parts ochraceous buff, darkest on crissum, underlaid with dull grayish on chest and sides; inner web of remiges barely fringed with buffy. Immature birds are bright olive green above, including outer webs of remiges and rectrices; the superciliary streak is tinged with yellowish, the bill wholly dusky without yellow spots.

One of the adult males has a number of blackish spots across the foreneck, suggesting the complete jugular band of *aurantiostrius*. This bird is clearly related to that species, and its generic separation as *Stelgidostomus* would merely serve to obliterate its natural affinities. It may even prove to be a geographic representative.

Birds from the Serra dos Orgãos, Paraná, and Rio Grande do Sul agree well together. *S. maxillosus* refers to the immature plumage, while *S. gularis* was based on an adult bird.

Wing (adult males), 98-103; tail, 96-101.

*Material examined*.—Rio de Janeiro: Colonia Alpina, Serra dos Orgãos, 1.—São Paulo: Serra, near Itararé, 1.—Paraná: Roça Nova, Serra do Mar, 4.—Rio Grande do Sul: Santo Angelo, 1; Asylo Pella, 1.—"Montevideo," 2.

<sup>2</sup> Berlepsch (1912, p. 1116) suggests "São Paulo" as type locality, but an original specimen received at Vienna from the Berlin Museum is labeled "Santo Angelo," a place in Rio Grande do Sul.

<sup>3</sup> Whether *Loxia gularis* Lesson (Traité d'Orn., p. 448, 1831) is the same bird cannot be determined from the description: "Gris enfumé; trait derrière l'oeil et gorge blancs; queue un peu fourchue." The type does not any longer exist in the Paris Museum.

naye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 377, 1930; idem, Cat. Coll. Amer. Bds., p. 96, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 218 (note), 1870—Santo Angelo [Rio Grande do Sul].

*Saltator coerulescens* (not of Vieillot) Cabanis, Mus. Hein., 1, p. 142, 1851—"Montevideo" and southern Brazil (diag.; spec. in Berlin Museum examined).

*Saltator azarae* (not of d'Orbigny) Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 186, 1906—Retiro do Ramos, Lagõa Esgottada, Serra do Itatiaya, São Paulo; Lüderwaldt, Zool. Jahrb. (Syst.), 26, p. 357, 1909—Serra do Itatiaya (ex Ribeiro).

*Stelgidostomus maxillosus* Ihering, Rev. Mus. Paul., 6, p. 347, 1905—Itararé, São Paulo (spec. examined); idem, Cat. Faun. Braz., 1, p. 372, 1907—São Paulo (Itararé, Campos de Jordão, Itatiaya); Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 357, 1909—Serra do Itatiaya (habits); Bertoni, Revist. Inst. Parag., 1907, p. 2—Alto Paraná; idem, Anal. Soc. Cient. Arg., 75, p. 101, 1913—Misiones; idem, Faun. Parag., p. 65, 1914—Alto Paraná, Paraguay; Tremoleras, El Hornero, 2, p. 23, 1920—"Uruguay"; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Retiro do Ramos, Itatiaya; Holt, Bull. Amer. Mus. N. H., 57, p. 316, 1928—below Macieiras, Serra do Itatiaya.

*Range*.—Serras of southeastern Brazil, from Rio de Janeiro (Colonia Alpina, Serra dos Orgãos) to northern Rio Grande do Sul (Santo Angelo; Asylo Pella) and adjacent districts of Paraguay and Misiones (Alto Paraná).<sup>1</sup>

**\*Saltator aurantirostris aurantirostris Vieillot. ORANGE-BILLED SALTATOR.**

*Saltator aurantirostris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 103, 1817—based on "Habia pico aranjado" Azara, No. 83; "Paraguay," probably=Corrientes; Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 35, 1837—part, Corrientes (spec. in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 288, pl. 28, fig. 3 (egg), 1839—Corrientes (breeding; nest and eggs descr.); Hartlaub, Syst. Ind. Azara, p. 6, 1847—"Paraguay" (ex Azara); Bonaparte, Consp. Gen. Av., 1, (2), p. 490, 1850—Corrientes and Paraguay; Selater, Proc. Zool. Soc. Lond., 24, p. 74, 1856—part, Paraguay and Corrientes ("immature"); Burmeister, Journ. Orn., 8, p. 253, 1860—part, Paraná, Entre Ríos; idem, Reise La Plata St., 2, p. 481, 1861—part, Córdoba, Tucumán, and Paraná; Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; Barrows, Bull. Nutt. Orn. Cl., 8, p. 91, 1883—Concepción del Uruguay, Entre Ríos; Selater, Cat. Bds. Brit. Mus., 11, p. 292, 1886—part, spec. a-c, f, h-j, Cosquin (Córdoba), Paraguay, and Uruguay ("Montevideo," Paysandú); Selater and Hudson, Arg. Orn., 1, p. 42, 1888—part, Corrientes and Entre Ríos; Stempelmann and Schulz, Bol. Acad. Nac.

<sup>1</sup> Its occurrence in Uruguay is open to doubt. The original locality "Montevideo" was an obvious mistake, and no other specimens have since been obtained within the boundaries of the Uruguayan Republic.

Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Kerr, Ibis, 1892, p. 125—near Fortín Page, lower Pilcomayo; Aplin, Ibis, 1894, p. 168—Uruguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 5, 1895—San Pablo, Tucumán; idem, l.c., 15, No. 378, p. 4, 1900—Corumbá, Matto Grosso; Kerr, Ibis, 1901, p. 223—Chaco Paraguay; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 176, 1902—Tucumán, Tapia, and San Pablo; Baer, Ornith., 12, p. 216, 1904—Santa Ana and Tapia, Tucumán; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 42, 1905—Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 173, 1909—part, Corrientes (Mercedes), Santa Fé (Mocoví, San Vicente), and Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 381, 1910—part, Córdoba (Cosquín), Chaco (Mocoví), Corrientes, and Entre Ríos; Grant, Ibis, 1911, p. 95—Santa Elena, Entre Ríos; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1116, 1146, 1912—part, Paraguay, Rio Grande do Sul (São Lourenço), Uruguay, and Argentina (excl. of Mendoza); Bertoni, Faun. Parag., p. 64, 1914—Rio Mondafí, Paraguay; Marelli, El Hornero, 1, p. 79, 1918—Curuzú Cuatiá, Corrientes; Tremoleras, l.c., 2, p. 23, 1920—Rio Negro, Uruguay; Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos (nest and eggs descr.); Smyth, l.c., 4, p. 147, 1928—Santa Elena (eggs descr.); Castellanos, l.c., 5, p. 319, 1934—Valle de los Reartes, Córdoba.

*Saltator aurantiirostris aurantiirostris* Hellmayr, Nov. Zool., 32, p. 7, 1925 Corrientes (crit.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 396, 1926—Chaco (Las Palmas), Formosa (Rio Pilaga), and Tucumán (Tapia); Friedmann, Bull. Mus. Comp. Zool., 68, p. 229, 1927—Santa Elena, Entre Ríos, and Concepción, Tucumán; Chapman, Amer. Mus. Novit., 261, p. 15, 1927 (range); Naumburg, Bull. Amer. Mus. N. H., 60, p. 351, 1930—Matto Grosso (Corumbá); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 240, 1930—Formosa (Tapikiolé) and Bolivia (Villa Montes and Fortín Esteros, Tarija) (crit.).

(?) *Saltator laticlavius* (not of Sclater and Salvin) Lönnberg, Ibis, 1903, p. 457—San Luis, Tarija, Bolivia (crit.).

*Range*.—Extreme southern and southwestern Brazil, in states of Rio Grande do Sul (São Lourenço) and Matto Grosso (Corumbá); Uruguay; Paraguay; northeastern Argentina, from Corrientes and Entre Ríos west to Córdoba, Santiago del Estero, and Tucumán; southeastern Bolivia (Dept. Tarija).<sup>1</sup>

<sup>1</sup> The material, though rather unsatisfactory, seems to indicate that there is no constant difference between Corrientes birds (which may be assumed to represent typical *aurantiiostris*) and others from Tucumán and Bolivia (Villa Montes). As to the tail markings, my findings are in complete agreement with Chapman's (Amer. Mus. Novit., 261, p. 2, 1927), so I need not dwell on this subject any more. We have noted that two examples from the hill region in northern Rio Grande do Sul are unquestionably referable to *S. maxillosus*, both having the characteristic bill and the white superciliaries extended forward to the base of the culmen. However, a mummified specimen collected by the late H. von Ihering on November 15, 1886, at São Lourenço, in the southern part of the same state, seems to belong with *aurantiiostris*. There is no trace of white above the lores; the penultimate rectrix (the outermost pair is missing) has a distinct white apical margin (always absent in *maxillosus*); the buffy throat is bounded posteriorly by a complete broad, black gorget—all characters of

8: Argentina (Concepción, Tucumán, 4; La Hoyada, Tucumán, 1; El Carrizal, Sierra de Córdoba, 1); Uruguay (Rio Uruguay, Dept. Soriano, 1; Rio Cebollati, Dept. Minas, 1).

***Saltator aurantiirostris nasica* Wetmore and Peters.<sup>1</sup> LONG-BILLED SALTATOR.**

*Saltator aurantiirostris nasica* Wetmore and Peters, Proc. Biol. Soc. Wash., 35, p. 45, March 20, 1922—Potrerillos (El Salto), Mendoza, Argentina (type in Museum of Comparative Zoology, Cambridge, Mass.); Giacomelli, El Hornero, 3, p. 68, 1923—La Rioja; Wetmore, Bull. U. S. Nat. Mus., 133, p. 397, 1926—Victorica, Pampa; Chapman, Amer. Mus. Novit., 261, p. 15, 1927—Mendoza to Pampa (crit.).

*Saltator aurantiirostris* (not of Vieillot) Burmeister, Journ. Orn., 6, p. 160, 1858—Mendoza; idem, l.c., 8, p. 253, 1860—part, Mendoza; idem, Reise La Plata St., 2, p. 481, 1861—part, Mendoza; Sclater, Cat. Bds. Brit. Mus., 11, p. 292, 1886—part, spec. d, e, g, Mendoza; Sclater and Hudson, Arg. Orn., 1, p. 42, 1888—part, Mendoza; Koslowsky, Rev. Mus. La Plata, 6, p. 278, 1895—Chilecito, La Rioja; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 381, 1910—part, La Rioja (Chilecito) and Mendoza; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1116, 1146, 1912—part, Mendoza; Sanzin, El Hornero, 1, p. 152, 1918—La Paz and Las Catitas, Mendoza; Reed, l.c., 2, p. 272, 1919—Mendoza (altitudinal range, nest and eggs); Chapman, Amer. Mus. Novit., 261, p. 18, 1927 (range).

*Range*.—Western Argentina, from western Pampa (Victorica) north to Mendoza and La Rioja.

***Saltator aurantiirostris tilcarae* Chapman.<sup>2</sup> TILCARA SALTATOR.**

*aurantiiostris*. While the color of the bill, owing to the loss of its corneous integument, cannot be ascertained, its shape is obviously that of *aurantiiostris*. The Orange-billed and the Thick-billed Saltator are no doubt closely related, and certain color characters, such as the unmarked tail and the development of the black jugular crescent, are merely of quantitative nature and, besides, bridged by some individuals of the two "species." A more comprehensive series from Rio Grande do Sul may yet show them to be geographical representatives in spite of the differently shaped bill, though Bertoni records them both from the Alto Paraná in Paraguay.

A single adult male from Córdoba (Cosquin) has the comparatively small bill of Corrientes birds, and is by no means referable to *nasica*. A series from southeastern Bolivia (Villa Montes, upper Pilcomayo) cannot be separated from typical *aurantiiostris* either.

*Additional material examined*.—Rio Grande do Sul: São Lourenço, 1.—Paraguay: Villa Rica, 2.—Uruguay: Paysandú, 1.—Argentina: Corrientes, 3; Mercedes, Corrientes, 1; Mocoví, Santa Fé, 1; San Vicente, Santa Fé, 1; Ocampo, Santa Fé, 1; Tapikiolé, Formosa, 2; Cosquin, Córdoba, 4; Tucumán, 1.—Bolivia: Villa Montes, Tarija, 6.

<sup>1</sup> *Saltator aurantiiostris nasica* Wetmore and Peters: Similar to *S. a. aurantiiostris*, but with larger, longer and heavier bill (19½–21, against 17–18½ mm.).

Five specimens from Mendoza and one from La Rioja (Chilecito) examined.

<sup>2</sup> *Saltator aurantiiostris tilcarae* Chapman: "Resembling *S. a. aurantiiostris* in general coloration, but inner web of the outer tail-feather with a clear, well-

*Saltator aurantiirostris tilcarae* Chapman, Amer. Mus. Novit., 261, pp. 2, 15, March 28, 1927—Tilcara, Prov. Jujuy, Argentina (type in the American Museum of Natural History, New York).

*Saltator aurantiirostris* (not of Vieillot) White, Proc. Zool. Soc. Lond., 1882, p. 598—Orán, Salta, and (?) Fuerte de Andalgalá, Catamarca; Sclater and Hudson, Arg. Orn., 1, p. 42, 1888—part, Orán; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 8, 1897—Campo Santo and Tala, Salta; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Salta; Budin, El Hornero, 4, p. 411, 1931—Maimará, Jujuy.

*Range*.—Arid Temperate zone of northwestern Argentina, in provinces of Jujuy, Salta, and (?) Catamarca.

**\*Saltator aurantiirostris subsp.<sup>1</sup> BOLIVIAN SALTATOR.**

*Saltator aurantiirostris bolivianus* (not *Saltator cayanus bolivianus* Chubb, 1921) Chapman, Amer. Mus. Novit., 261, pp. 3, 15, March 28, 1927—Tujma, Dept. Cochabamba, Bolivia (type in the American Museum of Natural History, New York).

*Saltator aurantiirostris* (not of Vieillot) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 35, 1837—part, La Paz, Bolivia; d'Orbigny, Voy. Amér. Mérid., Ois., p. 288, 1839—part, Bolivia (Sicasica, Cochabamba, Mizque, Valle Grande, Ayupaya, Chuquisaca, La Paz); Sclater, Proc. Zool. Soc. Lond., 24, p. 74, 1856—part, Bolivia (d'Orbigny's localities); idem, Cat. Coll. Amer. Bds., p. 96, 1862—Bolivia.

*Saltator laticlavus* (not of Sclater and Salvin, 1869) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 603—Sorata and Tilotilo, Prov. Yungas, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 292, 1886—part, spec. d-h, Sorata, Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—"near Valparaiso," errore, probably Bolivia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1116, 1912—part, Bolivia.

*Saltator aurantiirostris albociliaris* (not *Pitylus albociliaris* Philippi and Landbeck) Hellmayr, Nov. Zool., 32, p. 7, 1925—Ayupaya and La Paz, Bolivia (crit.).

defined white end from 22 to 28 mm. in length along the shaft; the second feather sometimes with a small terminal wedge of white; bill larger, nearly, if not quite, as large as in *S. a. nasica*. Wing, 98–99, (female) 92; tail, 91–93, (female) 88; bill, 19–20." (Chapman, l.c.) We are not acquainted with this form, which was based on a series of specimens from Jujuy (Tilcara, Perico) and Salta (Rosario de Lerma). The describer also refers here two examples from Concepción, Tucumán, whence Field Museum has several skins which do not seem to be separable from typical *aurantiiostris*. Catamarca is but provisionally included in the range of *tilcarae*, as no material has been critically examined.

<sup>1</sup> *Saltator aurantiirostris* subsp.: Very similar to *S. a. albociliaris*, but on average slightly smaller; the buffy whitish gular area decidedly more extensive, the black at the sides of the throat correspondingly smaller; the black jugular band much narrower. Wing, 98–103, (female) 95–100; tail, 96–101, (female) 88–95; bill, 17½–19.

This form, if valid, requires to be renamed, the subspecific term *bolivianus* being preoccupied in the genus. I am reluctant, however, to do so as its distinctness from *S. a. tilcarae* is open to doubt. A single adult of the latter form from Campo Santo, Salta, is, in fact, inseparable from Bolivian skins.

*Material examined*.—Bolivia: La Paz, 1; Chicani, La Paz, 3; Ayupaya, 1; Samaipata, 2; Valle Grande, 2.



*Range*.—Arid Temperate zone of Bolivia, from La Paz to Santa Cruz and Chuquisaca.

2: Bolivia (Parotani, Cochabamba, 2).

**\*Saltator aurantirostris albociliaris** (Philippi and Landbeck).

WHITE-BROWED SALTATOR.

*Pitylus albociliaris* Philippi and Landbeck, Anal. Univ. Chile, **19**, p. 611, 1861—Socoroma (alt. 5,000 ft.), Prov. Tacna, Peru (type in National Museum, Santiago de Chile; cf. Gigoux and Looser, Bol. Mus. Nac. Santiago, **13**, p. 21, 1930); idem, Arch. Naturg., **29**, (1), p. 122, 1863—Socoroma (German version of orig. descr.).

*Saltator latyclavius* Selater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 151—Tinta, Dept. Cuzco, Peru (type in coll. of P. L. Selater, now in the British Museum); idem, l.c., 1873, p. 780—Paucartambo, Peru; Taczanowski, l.c., 1874, p. 517—Maraynioc and Acancocha, Dept. Junín, Peru; idem, Orn. Pér., **2**, p. 545, 1884—part, Maraynioc, Acancocha, and Paucartambo; Selater, Cat. Bds. Brit. Mus., **11**, p. 292, 1886—part, spec. a-c, Tinta, Peru.

*Saltator aurantirostris* (not of Vieillot) Selater, Proc. Zool. Soc. Lond., **24**, p. 74, 1856—part, Echarate, Peru.

*Saltator albociliaris* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 348—Acobamba, Garita del Sol, and Maraynioc (crit.); Chapman, Bull. U. S. Nat. Mus., **117**, p. 110, 1921—above Torontoy, Ollantaytambo, Huaracundo Canyon, Chospiyoc, Occobamba Valley, Pisac, Puquiura, and Cuzco, Urubamba, Peru.

*Saltator aurantirostris albociliaris* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1116, 1147, 1912—part, central and southeastern Peru (crit.); Chapman, Amer. Mus. Novit., **261**, p. 15, 1927—northern Chile and southern Peru (crit.); Zimmer, Field Mus. Nat. Hist., Zool. Ser., **17**, p. 464, 1930—Matucana (Lima), La Quinua (Junín), and Culleui, Marañón River (Huánuco), Peru (crit.); Hellmayr, l.c., **19**, p. 96, 1932—Socoroma, Prov. Tacna.

*Saltator aurantirostris griseipectus* Carriker, Proc. Acad. Nat. Sci. Phila., **85**, p. 37, 1933—Auquimarca, Dept. Junín, Peru (type in coll. of the Academy of Natural Sciences, Philadelphia).

*Range*.—Arid Temperate zone of the southern half of Peru, from Ancachs (Macate) and Huánuco (Culleui, headwaters of the Rio Marañón) south to Cuzco and Tacna (Socoroma).<sup>1</sup>

<sup>1</sup> Topotypes from the Tacna region not being available, the applicability of the term *albociliaris* to the present form remains in doubt. Further subdivision of the Peruvian birds is impracticable. *S. a. griseipectus* appears to have been based on specimens in worn plumage, when the under parts become very pale and the breast looks almost pure gray with very little, if any, buffy tone. Junín birds are certainly indistinguishable from others (in corresponding condition) from the Cuzco region, while those from Macate vary towards *iteratus*.

*Additional material examined*.—Junín: Garita del Sol, Vitoc, 1; Maraynioc, 2; Acancocha, 1; Chipa, 4.—Cuzco: Vicinity of Cuzco (Anta, Lucre, Lauramarca), 14.

16: Peru (Macate, Ancachs, 8; Cullcui, Rio Marañón, 1; Huánuco Mountains, 3; Panao Mountains, Huánuco, 1; La Quinoa, Junín, 2; Matucana, Lima, 1).

**\**Saltator aurantirostris iteratus* Chapman.<sup>1</sup> CAJAMARCA  
SALTATOR.**

*Saltator aurantirostris iteratus* Chapman, Amer. Mus. Novit., **261**, pp. 3, 16, March 28, 1927—Chugur, northwest of Cajamarca, Peru (type in the American Museum of Natural History, New York).

*Saltator laticlavius* (not of Sclater and Salvin) Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 198—Cutervo (eggs descr.); idem, l.c., 1882, p. 16—Tamiapampa; idem, Orn. Pér., **2**, p. 545, 1884—part, Cutervo, Chota, and Tamiapampa; Salvin, Nov. Zool., **2**, p. 6, 1895—Cajabamba.

*Saltator aurantirostris albociliaris* (not *Pitylus albociliaris* Philippi and Landbeck) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1116, 1147, 1912—part, northern Peru (Cutervo, Cajabamba, San Pedro, Levanto, Suecha, Chota, Tamiapampa).

*Saltator albociliaris* Ménégau, Rev. Franç. d'Orn., **2**, p. 9, 1911—Cajabamba.

*Range*.—Temperate zone of northwestern Peru, in depts. of Cajamarca, Libertad, and Amazonas (Tamiapampa).

1: Peru (Cajamarca, 1).

***Saltator aurantirostris nigriceps* (Chapman).<sup>2</sup> BLACK-HEADED  
SALTATOR.**

*Pitylus nigriceps* Chapman, Bull. Amer. Mus. N. H., **33**, p. 322, May, 1914—Loja, Ecuador (type in the American Museum of Natural History, New York); idem, l.c., **55**, p. 615, 1926—southwestern Ecuador (Celica, Loja) and northwestern Peru (Palambra).

*Saltator nigriceps* Chapman, Amer. Mus. Novit., **261**, p. 16, 1927 (crit.).

<sup>1</sup> *Saltator aurantirostris iteratus* Chapman: Exceedingly close to, and agreeing with, *S. a. bolivianus* in extensively buffy white gular area and narrow black jugular crescent, but white apical markings to lateral rectrices less extended, and bill smaller. Differs from *S. a. albociliaris* by somewhat smaller size; much narrower black jugular band; smaller buffy white gular stripe; more restricted white tail-end. Wing, 95–98, (female) 93–97; tail, 95–101, (female) 92–96; bill, 19–20.

*Additional material examined*.—Peru: Cajabamba, 5; San Pedro, 1; San Pablo, Cajamarca, 1; Levanto, 1.

<sup>2</sup> *Saltator aurantirostris nigriceps* (Chapman): Differs from all other races by larger, more swollen (in both sexes yellow) bill; entirely black head including throat and chest, this color extending on the crown to the nape; dark gray breast; and absence of white post-ocular streak. Wing (male), 106; tail, 105; bill, 23.

This, at last, is a strongly marked form with the head entirely black. According to Chapman, the white postocular streak is faintly suggested in one specimen. The relative nature of its characters, together with the occasional occurrence of black-throated individuals in the range of *albociliaris* (we have seen an adult female of this mutation from Lucre, near Cuzco), leave no doubt in my mind that *nigriceps* is merely an offshoot of the *aurantiostriis* group, which it represents on the western slope of the Andes in extreme northwestern Peru and the adjacent section of western Ecuador.

*Material examined*.—Peru: Palambra, 1.—Ecuador: Celica, 1.

*Range*.—Subtropical zone of southwestern Ecuador (Prov. of Loja) and adjacent section of extreme northwestern Peru (Palambra, Dept. Piura).

**\**Saltator atricollis* Vieillot. BLACK-THROATED SALTATOR.**

*Saltator atricollis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 104, 1817—based on "*Habia gola negra*" Azara, No. 82, Paraguay; d'Orbigny, Voy. Amér. Mérid., Ois., p. 288, 1839—Chiquitos, Bolivia (spec. examined); Hartlaub, Syst. Ind. Azara, p. 6, 1847—Paraguay; Bonaparte, Consp. Gen. Av., 1, (2), p. 490, 1850—Brazil; Burmeister, Syst. Uebers. Th. Bras., 2, p. 202, 1856—Sete Lagoas, Minas Geraes; Selater, Proc. Zool. Soc. Lond., 24, p. 77, 1856—Brazil (Minas Geraes, São Paulo, "Rio"), Paraguay, and Bolivia (Chiquitos) (monog.); idem, Cat. Coll. Amer. Bds., p. 97, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 219, 1870—São Paulo (Irisanga), Goyáz (Goyáz City), and Matto Grosso (Cuyabá); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 417—Minas Geraes (Lagõa Santa) and São Paulo (São Bento); Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 604—Santa Ana, Chiquitos, Bolivia; Selater, Cat. Bds. Brit. Mus., 11, p. 293, 1886—Brazil (Bahia, "Rio"), Paraguay and Bolivia; Allen, Bull. Amer. Mus. N. H., 3, p. 366, 1891—Chapada, Matto Grosso; Ihering, Rev. Mus. Paul., 3, p. 157, 1899—São Paulo; Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 677, 1906—Brazil (crit., range); Ihering, Cat. Faun. Braz., 1, p. 371, 1907—São Paulo (Batataes, Avanhadava, Baurú); Hellmayr, Nov. Zool., 15, p. 31, 1908—Fazenda Esperança and Goyáz, Goyáz; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 83, 1910—Piauhy (Santo Antonio de Gilboez, Santa Philomena) and Maranhão (Barra do Galiota); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1117, 1912—Brazil (in states of Bahia, Goyáz, Minas Geraes, "Rio," São Paulo, and Matto Grosso), Paraguay and Bolivia (Santa Ana, Chiquitos); Bertoni, Faun. Parag., p. 64, 1914—Paraguay; Hellmayr, Nov. Zool., 32, p. 8, 1925—Chiquitos, Bolivia (range); idem, Field Mus. Nat. Hist., Zool. Ser., 12, p. 291, 1929—Maranhão (Codó, Cocos; Fazenda Inhumá, Alto Parnahyba), Goyáz (Philadelphia), Piauhy (Arára), Ceará (Varzea Formosa), and Bahia (São Marcello, Rio Preto); Naumburg, Bull. Amer. Mus. N. H., 60, p. 352, 1930—Matto Grosso.

*Saltator validus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 106, 1817—based on "*Habia robustona*" Azara, No. 84, Paraguay; Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 35, 1837—Chiquitos, Bolivia.

*Tanagra jugularis* Lichtenstein, Verz. Doubl. Berliner Mus., p. 31, 1823—São Paulo (type in Berlin Museum).

*Loria capsicum* (Valenciennes MS.) Lesson, Traité d'Orn., p. 448, 1831—"Brésil" (type in Paris Museum).

*Saltator sordidus* Lesson, Echo du Monde Savant, 12e année, No. 13, p. 295, Feb. 23, 1845—Brazil (type in coll. of Dr. Abeillé, Bordeaux).

*Tanagra atricollis* Spix, Av. Spec. Nov. Bras., 2, p. 43, pl. 56, fig. 2, 1825—Minas Geraes.

*Fringilla jugularis* Wied, Beitr. Naturg. Bras., 3, (1), p. 558, 1830—Sertão of Bahia, near the frontier line of Minas Geraes.

*Range*.—Campo region of Brazil, from Maranhão, Piahy, and Ceará south through Goyáz, Minas Geraes, and western Bahia to northern São Paulo and Matto Grosso, and the adjacent parts of Paraguay and Bolivia (Santa Ana, Chiquitos).<sup>1</sup>

15: Brazil (Codó, Cocos, Maranhão, 3; Inhuma, Alto Parnahyba, Maranhão, 1; Arára, Piahy, 1; Varzea Formosa, Ceará, 1; Philadelphia, Goyáz, 2; Rio São Miguel, Goyáz, 1; São Marcello, Bahia, 1; Piraputanga, Matto Grosso, 2; Chapada, Matto Grosso, 3).

***Saltator rufiventris* Lafresnaye and d'Orbigny.<sup>2</sup> RUFIOUS-BELLIED SALTATOR.**

*Saltator rufiventris* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 35, 1837—Sicasica, Bolivia (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 289, pl. 28, fig. 1, 1839—vicinity of Enquisivi, Prov. Sicasica, and near Palca, Prov. Ayupaya, Bolivia; Bonaparte, Consp. Gen. Av., 1, (2), p. 489, 1850—Bolivia; Sclater, Proc. Zool. Soc. Lond., 24, p. 74, 1856—Bolivia (monog.); Sclater and Salvin, l.c., 1879, p. 603—Inquisivi and Palca, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 293, 1886—Bolivia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1117, 1912—Bolivia (Inquisivi, Palca); Hellmayr, Nov. Zool., 32, p. 8, 1925—Bolivia (descr. of young).

*Range*.—Highlands of western Bolivia (Enquisivi, Prov. Sicasica, Dept. La Paz; Palca, Prov. Ayupaya, Dept. Chuquisaca).

**\**Saltator albicollis guadelupensis* Lafresnaye.<sup>3</sup> GUADELOUPE STREAKED SALTATOR.**

*Saltator guadelupensis* Lafresnaye, Rev. Zool., 7, p. 167, 1844—Guadeloupe (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 378, 1930); Bonaparte, Consp. Gen. Av., 1, (2), p. 489, 1850—Guadeloupe; Sclater, Proc. Zool. Soc. Lond., 1889, p. 326—Dominica; Verrill, Trans. Conn. Acad. Sci., 8, p. 339, 1892—Dominica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 671, 1901—part, Guadeloupe and Dominica.

<sup>1</sup> Brazilian birds and a single (worn) adult from Bolivia (Chiquitos) agree with topotypes from Paraguay. This species being restricted to the arid campo districts, the locality "Rio de Janeiro" is unquestionably erroneous.

*Additional material examined*.—Paraguay: Bernalcué, near Asunción, 3.—Bolivia: Santa Ana, Chiquitos, 1.—Brazil: Maranhão: opposite Barra do Galiota, 2; Piahy: Santo Antonio de Gilboez, 2; Santa Philomena, 1; Goyáz City, Goyáz, 3; Fazenda Esperança, Goyáz, 2; Minas Geraes, 1; Irisanga, São Paulo, 7; São Paulo (unspecified), 1; Cuyabá, Matto Grosso, 1; Chapada, 4.

<sup>2</sup> A very distinct species, whose range is still very imperfectly known.

*Material examined*.—Bolivia: Sicasica, 1 (the type), Ayupaya, 2; unspecified, 1.

<sup>3</sup> *Saltator albicollis guadelupensis* Lafresnaye may generally be separated from typical *albicollis* by darker, more tawny or yellowish under parts. Various individuals are, however, practically indistinguishable.

*Saltator gadalupensis* Scater, Proc. Zool. Soc. Lond., 24, p. 76, 1856—Guadeloupe (monog.); Taylor, Ibis, 1864, p. 167—Dominica; Scater, Cat. Bds. Brit. Mus., 11, p. 295, 1886—part, Guadeloupe.

*Saltator gadeloupensis* Lawrence, Proc. U. S. Nat. Mus., 1, p. 57, 1878—Dominica; idem, l.c., 1, p. 457, 1879—Guadeloupe; idem, l.c., 1, p. 487, 1879—part, Guadeloupe and Dominica; Cory, Auk, 3, p. 201, 1886—part, Guadeloupe; idem, Auk, 8, p. 49, 1891—Guadeloupe; idem, Cat. W. Ind. Bds., p. 113, 1892—part, Guadeloupe and Dominica; Nicoll, Ibis, 1904, p. 569—Roseau Harbor, Dominica.

*Saltator albicollis* (not of Vieillot) Hellmayr, Nov. Zool., 13, p. 315, 1906—part, Guadeloupe and Dominica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1118, 1912—part, Guadeloupe and Dominica; Noble, Bull. Mus. Comp. Zool., 60, p. 387, 1916—Sainte Rose and Goyave, Guadeloupe.

*Saltator albicollis gadeloupensis* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 543, 1928—part, Dominica.

*Saltator albicollis gadalupensis* Bangs, Bull. Mus. Comp. Zool., 70, p. 378, 1930—Guadeloupe and Dominica (crit.).

*Range*.—Islands of Guadeloupe and Dominica, Lesser Antilles.<sup>1</sup>  
19: Lesser Antilles (Guadeloupe, 18; Dominica, 1).

**\*Saltator albicollis albicollis Vieillot. MARTINIQUE STREAKED SALTATOR.**

*Saltator albicollis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 107, 1817—"Cayenne," errore<sup>2</sup> (type in Paris Museum examined); Bonaparte, Consp. Gen. Av., 1, (2), p. 489, 1850—"Cayenne"; Scater, Proc. Zool. Soc. Lond., 24, p. 75, 1856—part, type from "Cayenne"; Hellmayr, Nov. Zool., 13, p. 315, 1906—part, Martinique and Santa Lucia (crit. note on type);<sup>3</sup> Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1118, 1912—part, Martinique and Santa Lucia.

*Saltator martinicensis* Bonaparte, Consp. Gen. Av., 1, (2), p. 489, 1850—Martinique (type in Paris Museum); Scater, Proc. Zool. Soc. Lond., 24, p. 76, 1856—Martinique (monog.); idem, l.c., 1871, p. 267—Santa Lucia.

*Saltator gadalupensis* (not *S. gadelupensis* Lafresnaye) Scater, Cat. Coll. Amer. Bds., p. 97, 1862—Santa Lucia; idem, Proc. Zool. Soc. Lond., 1871, p. 270—Santa Lucia; Semper, l.c., 1872, p. 649—Santa Lucia (habits); Scater, Cat. Bds. Brit. Mus., 11, p. 295, 1886—part, spec. a-g, Martinique and Santa Lucia.

*Saltator gadeloupensis* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 1, p. 354, 1879—Martinique; idem, l.c., 1, p. 487, 1879—part, Martinique; Cory, Auk, 3,

<sup>1</sup> The occurrence of this form on the island of Nevis requires confirmation. *Additional material examined*.—Guadeloupe, 7; Dominica, 3.

<sup>2</sup> Martinique substituted as type locality by Berlepsch (Verh. 5th Intern. Orn. Kongr. Berlin, p. 1118, 1912).

<sup>3</sup> While the type undoubtedly came from the West Indies (cf. Hellmayr, Nov. Zool., 13, pp. 315–316, 1906), its bleached condition, particularly on the under parts, does not permit certain subspecific classification, and there is no alternative but to accept Berlepsch's designation of Martinique as type locality, if we wish to preserve Vieillot's name.

p. 201, 1886—part, Martinique; idem, Auk, 4, p. 95, 1887—Martinique; idem, Cat. W. Ind. Bds., p. 113, 1892—part, Martinique; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 671, 1901—part, Martinique and Santa Lucia; Nicoll, Ibis, 1904, p. 560—Santa Lucia.

*Saltator guadaloupensis* Allen, Bull. Nutt. Orn. Cl., 5, p. 166, 1880—Santa Lucia.

*Saltator albicollis guadeloupensis* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 543, 1928—part, Santa Lucia.

*Saltator albicollis albicollis* Bangs, Bull. Mus. Comp. Zool., 70, p. 378, 1930—Martinique and Santa Lucia (crit.).

*Range.*—Islands of Martinique and Santa Lucia, Lesser Antilles.<sup>1</sup> 25: Lesser Antilles (Martinique, 14; Santa Lucia, 11).

**\*Saltator albicollis striatipictus Lafresnaye. STREAKED SALTATOR.**

*Saltator striatipictus* (err. typog.)<sup>2</sup> Lafresnaye, Rev. Zool., 10, p. 73, 1847—"Caly, in Nova-Granada"=Cali, Cauca Valley, Colombia (cotypes in coll. of the Academy of Natural Sciences, Philadelphia, and in Museum of Comparative Zoology, Cambridge, Mass.; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899, and Bangs, Bull. Mus. Comp. Zool., 70, p. 377, 1930); Hellmayr, Nov. Zool., 13, p. 17, 1906—Caparo, Chaguaramas, and Pointe Gourde, Trinidad; idem, l.c., 13, p. 316, 1906—part, Colombia, Venezuela, and Trinidad; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 67, 1912—Las Quiguas, Carabobo, Venezuela.

*Saltator maculipictus* Lafresnaye, Rev. Zool., 10, p. 73, 1847—"Nova-Granada" (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 377, 1930); Bonaparte, Consp. Gen. Av., 1, (2), p. 489, 1850 (ex Lafresnaye); Scater, Proc. Zool. Soc. Lond., 24, p. 76, 1856 (ex Lafresnaye); idem, Cat. Coll. Amer. Bds., p. 97, 1862—Trinidad and Venezuela; Taylor, Ibis, 1864, p. 83—Chacachacare and Monos Islands, near Trinidad; Scater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caracas, Venezuela.

*Saltator striatipictus* Bonaparte, Consp. Gen. Av., 1, (2), p. 489, 1850—Cartagena, Colombia; Scater, Proc. Zool. Soc. Lond., 23, p. 154, 1855—"Bogotá"; idem, l.c., 24, p. 76, 1856—Cali (ex Lafresnaye); idem, Cat. Coll. Amer. Bds., p. 97, 1862—New Granada; Léotaud, Ois. Trinidad, p. 286, 1866—Trinidad; Bangs, Proc. Biol. Soc. Wash., 12, p. 140, 1898—"Santa Marta"; Allen, Bull. Amer. Mus. N. H., 13, p. 166, 1900—Bonda and Minca, Colombia; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 359, 1908—Pointe Gourde and Carenage, Trinidad; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1147, 1912—Colombia, Venezuela, and Trinidad.

*Saltator albicollis* (not of Vieillot) Scater, Proc. Zool. Soc. Lond., 24, p. 75, 1856—part, Trinidad (descr.); Wyatt, Ibis, 1871, p. 327—Ocaña and Bucaramanga, Colombia; Scater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 505,

<sup>1</sup> Additional material examined.—Santa Lucia, 8.

<sup>2</sup> I am now inclined to agree with authors that "*striatipictus*" is merely a typographical error for "*striatipictus*."

pl. 42, fig. 9 (egg)—Medellin, Remedios, and Santa Elena, Colombia; Salvin and Godman, Ibis, 1880, p. 122—Minca, Colombia; Berlepsch, Journ. Orn., 32, p. 293, 1884—Bucaramanga, Colombia; Selater, Cat. Bds. Brit. Mus., 11, p. 294, 1886—part, spec. m-c', Colombia (Minca, Ocaña, "Bogotá," Medellin), Venezuela (Puerto Cabello), and Trinidad; Allen, Bull. Amer. Mus. N. H., 4, p. 52, 1892—Carúpano, Venezuela; Chapman, l.c., 6, p. 32, 1894—Monos Island, Trinidad; Phelps, Auk, 14, p. 364, 1897—San Antonio, Venezuela.

*Saltator striatipictus striatipictus* Chapman, Bull. Amer. Mus. N. H., 36, p. 563, 1917—Dabeiba, Caldas, San Antonio, La Florida, Cali, Rio Frio, Palmira, below Miraflores, near San Agustin, La Candela, below Andalusia, Chicoral, Rio Toché, Honda, and Fusugasugá, Colombia; Roberts, Trop. Agric., 11, p. 99, 1934—Trinidad.

*Saltator striatipictus striatipictus* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 33, 1919—Colombia and Trinidad (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 501, 1922—Bonda, Valparaíso, Cincinnati, Minca, and La Tigrera, Santa Marta region, Colombia (habits); Griscom, Bull. Mus. Comp. Zool., 69, p. 185, 1929—Cana, Darien; Darlington, l.c., 71, p. 418, 1931—Rio Frio, Magdalena, Colombia.

*Range.* Island of Trinidad, including Monos and Chacachacare; north coast of Venezuela; Colombia, west of the eastern Andes, north to extreme eastern Panama (Cana, Darien).<sup>1</sup>

29: Colombia (Cartagena, Bolívar, 1; Palmira, Cauca, 2; Medellin, 1; Cali, Valle de Cauca, 1); Venezuela (Colón, Tachira, 3; Puerto Cabello, Carabobo, 1; Maracay, Aragua, 3; Caracas, 11; Macuto, Caracas, 4; Cocollar, Sucre, 2).

**\**Saltator albicollis isthmicus* Selater. PANAMA STREAKED SALTATOR.**

*Saltator isthmicus* Selater, Proc. Zool. Soc. Lond., 1861, p. 130—Isthmus of Panama (type in coll. of P. L. Selater, now in British Museum); idem, Cat. Coll. Amer. Bds., p. 97, 1862—Panama; Selater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 351—Isthmus of Panama [= Lion Hill].

*Saltator striatipictus* (not of Lafresnaye) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 331, 1861—[Lion Hill], Panama.

<sup>1</sup> Birds from Trinidad and Venezuela appear to be inseparable from a Colombian series including several topotypes from Cali. Two specimens, one each from Carenage (Trinidad) and San Antonio (northeastern Venezuela), have the lower mandible pale yellow, except for a black patch near the base, and a yellow tip to the maxilla, thus agreeing in coloration of bill with *S. a. albicollis*, of Martinique. The only absolutely constant character to separate the continental form from its West Indian allies is the lesser extent of the whitish superciliary streak which terminates above the posterior edge of the eye instead of being continued along the upper margin of the auriculars. I have, therefore, no hesitation in associating *striatipictus* with *albicollis* in the same specific entity.

*Additional material examined.*—Trinidad: Carenage, 9; Caparo, 1; Chaguaramas, 1; Pointe Gourde, 1.—Venezuela: inland of Cumaná, 11; Las Quiguas, 1; San Esteban, Carabobo, 3.—Colombia: "Bogotá," 8; Bonda, 3; Cali, 5; Bucaramanga, 3.

*Saltator albicollis* (not of Vieillot) Salvin, Proc. Zool. Soc. Lond., 1883, p. 421—Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 330, 1884—part, Panama (Lion Hill, Panama City); Sclater, Cat. Bds. Brit. Mus., 11, p. 294, 1886—part, spec. f-l, Panama.

*Saltator albicollis isthmicus* Bangs, Proc. New Engl. Zool. Cl., 2, p. 32, 1900—Loma del León, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 669, 1901—part, Isthmus of Panama; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 224, 1906—savanna of Panama; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 276, 1918—Pedro Miguel and Tabernilla, Panama; Hallinan, Auk, 41, p. 321, 1924—Las Cascadas, Gatún, Farfan, and Gamboa, Panama (nest and eggs descr.).

*Saltator striatipictus isthmicus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1118, 1912—part, Isthmus of Panama (Lion Hill); Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 32, 1919—Panama City and Loma del León, Panama (crit.).

*Range*.—Isthmus of Panama,<sup>1</sup> west to Veraguas.<sup>2</sup>

6: Panama (Colón, 4; “near Darien,” Canal Zone, 1; unspecified, 1).

### ***Saltator albicollis speratus* Bangs and Penard.<sup>3</sup> PEARL ISLAND STREAKED SALTATOR.**

*Saltator striatipictus speratus* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 33, 1919—“Sabago” [=Saboga] Island, Pearl Islands, Bay of Panama (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Saltator albicollis isthmicus* (not of Sclater) Bangs, Auk, 18, p. 32, 1901—San Miguel Island; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 669, 1901—part, San Miguel Island; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 159, 1905—San Miguel and Saboga Islands (crit.); Rendahl, Ark. Zool., 13, No. 4, p. 56, 1920—Viveros Island.

*Saltator striatipictus isthmicus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1118, 1912—part, San Miguel Island.

*Range*.—San Miguel, Saboga, and Viveros Islands, Pearl Archipelago, Bay of Panama.

<sup>1</sup> The western extension of range I am unable to determine, having seen only a small series from the Canal Zone. A single example from Chiriquí being decidedly referable to *S. a. furax*, the subspecific classification of Veraguas birds, whence no material is available, remains in doubt. Salvin (Proc. Zool. Soc. Lond., 1867, p. 141; l.c., 1870, p. 189) records *S. isthmicus* from Santa Fé and Chitrá. Subsequently, the same specimens were referred by Salvin and Godman (Biol. Centr.-Amer., Aves, 1, p. 330, 1883) and Sclater (Cat. Bds. Brit. Mus., 11, p. 294, 1886; spec. a-e) to “*S. albicollis*” [= *striatipictus*]. It does not appear that either Ridgway (1901, p. 669) or Berlepsch (1912, p. 118), both of whom include Veraguas in the range of *isthmicus*, had any material from that district.

<sup>2</sup> Since the preceding lines were written, Griscom (Bull. Mus. Comp. Zool., 68, p. 380, 1935) has shown the Veraguan form to be *S. a. isthmicus*.

<sup>3</sup> *Saltator albicollis speratus* Bangs and Penard: About the size of *S. a. isthmicus* and slightly smaller than *S. a. striatipictus*; in coloration intermediate, being slightly more yellowish or greenish below than *striatipictus*, and less heavily streaked than *isthmicus*.

Judging from two specimens, this is rather a poor race.



**\*Saltator albicollis furax** Bangs and Penard.<sup>1</sup> COSTA RICAN STREAKED SALTATOR.

*Saltator striatipictus furax* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 32, 1919—near Boruca, Costa Rica (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Saltator striatipictus* (not of Lafresnaye) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 176, 1865—David, Chiriquí; Salvin, Proc. Zool. Soc. Lond., 1867, p. 141—part, David.

*Saltator albicollis* (not of Vieillot) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 330, 1884—part, David, Chiriquí; Cherrie, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 139, 1893—Lagarto, Boruca, and Térraba, Costa Rica.

*Saltator albicollis isthmicus* (not of Sclater) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 669, 1901—part, David, Chiriquí.

*Saltator striatipictus isthmicus* Bangs, Auk, 24, p. 312, 1907—Boruca and Lagarto, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 874, 1910—El General de Térraba, Boruca, and Buenos Aires, Costa Rica (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1118, 1912—part, Chiriquí (David).

*Range.*—Southwestern Costa Rica (Térraba Valley) and the adjacent district of extreme western Panama (David, Chiriquí). 4: Costa Rica (Térraba, 2; Boruca, 2).

**\*Saltator albicollis flavidicollis** Sclater.<sup>2</sup> ECUADORIAN SALTATOR.

*Saltator flavidicollis* Sclater, Proc. Zool. Soc. Lond., 28, p. 274, 1860—Babahoyo, Ecuador (type in coll. of P. L. Sclater, now in British Museum);

<sup>1</sup> *Saltator albicollis furax* Bangs and Penard: Very close to *S. a. isthmicus*, but darker and greener below with the streaking more prominent.

A single adult from Chiriquí is identical with a topotypical series of nine Costa Rican specimens.

<sup>2</sup> The remarkable variation of this form has been discussed at length by Chapman, and while agreeing with his contention that the birds with yellowish (nearly or wholly unstreaked) under parts and broad, yellowish superciliaries, and those with reduced, whitish supraloral streak and heavily striped breast pertain to a single race, I am not quite convinced that the latter variety merely represents an immature plumage. Furthermore, it would seem as if the "*flavidicollis*" type of coloration did not exist in the northwestern parts of Ecuador, since nine specimens from Ibarra and Paramba, Prov. Imbabura, and one from "Quito" (some of which are undoubtedly adult) are strikingly uniform in characters, and closely resemble *striatipictus* in their heavily striped breast. They merely differ from that race by more grayish upper, and whiter under parts without any olivaceous shading across chest and along sides. A series obtained by E. Festa in the Chota Valley, near Quito, and recorded by Salvadori and Festa, s.n. *S. albicollis*, seems to be similar. Other examples of the same variety, taken in company with "*flavidicollis*," I have seen from Puna Island. Yellowish-bellied individuals with broad yellowish superciliaries appear to be recorded only from Manaví and southwards. A possible explanation of the problem would be to assume that the west Ecuadorian race is dimorphic in the southern part of its range, the plain-bellied variety signifying an approach to *S. a. immaculatus* of the Peruvian coast.

*Material examined.*—Ecuador: Ibarra, Prov. Imbabura, 4; Paramba, Prov. Imbabura, 5; "Quito," 1; Babahoyo, 2; Yaguachi, 1; Puna Island, 8; Guayaquil, 4.

idem, Cat. Coll. Amer. Bds., p. 96, 1862—Babahoyo; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 548—Yaguachi, Ecuador (crit.); Taczanowski, Orn. Pér., 2, p. 543, 1884—Lechugal and Tumbes, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 294, 1886—Ecuador (Babahoyo, Guayaquil, Puna Island); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 22, 1899—Vinces, Ecuador (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1117, 1912—western Ecuador and north-western Peru.

*Saltator olivascens* (not of Cabanis) Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 320—Lechugal, Dept. Tumbes, Peru.

*Saltator albicollis* (not of Vieillot) Hartert, Nov. Zool., 5, p. 483, 1898—Ibarra, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 22, 1899—La Concepción (Chota), Ecuador (crit.); Goodfellow, Ibis, 1901, p. 472—below Gualea, Ecuador.

*Saltator striatipectus* (not of Lafresnaye) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1117, 1912—part, western Ecuador.

*Saltator striatipectus striatipectus* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 79, 1922—road to Gualea, Ecuador.

*Saltator striatipectus flavidicollis* Chapman, Bull. Amer. Mus. N. H., 55, p. 617, 1926—Ecuador (Manaví, Chongocito, Bucay, Guayaquil, Puna Island, Santa Rosa, Portovelo, Zaruma, Las Piñas, Guainche, Alamor, Cebollal) and Peru (Milagros, Paletillas, and Palambla, Piura) (crit.).

*Range*.—Arid Tropical (and Subtropical) zone of western Ecuador and extreme northwestern Peru (Tumbes and Lechugal, Dept. Tumbes; Milagros, Paletillas, and Palambla, western Piura).

**\**Saltator albicollis immaculatus* Berlepsch and Stolzmann.<sup>1</sup>**  
KALINOWSKI'S SALTATOR.

*Pitylus olivaceus* (not *Saltator olivaceus* Vieillot, 1817) Lesson, L'Institut, 2, No. 72, p. 316, Sept. 27, 1834—Callao, Peru (location of type not stated); idem, in Bougainville, Journ. Navig. Thétis, 2, p. 326, 1837—Callao.

*Phoenisoma olivacea* Lesson, Rev. Zool., 3, p. 99, 1840—no locality (descr. of "male"); idem, Oeuvr. Buffon, éd. Lévêque, 20 (Descr. Mamm. Ois.), p. 345, 1847—environs of Callao, Peru.

*Saltator immaculatus* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 375—Lima, Peru (type in Warsaw Museum; of Sztolcman and Domaniowski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 169, 1927); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1147, 1912—western Peru (Lima, Ica, Chepen, Guadalupe, Quebrada de Culebras).

*Saltator striatipectus* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 1866, p. 97—vicinity of Lima.

<sup>1</sup> *Saltator albicollis immaculatus* Berlepsch and Stolzmann: Most nearly related to *S. a. flavidicollis* (the unstreaked phase), but larger; superciliaries pure white; pileum and sides of neck pure gray, not olivaceous; under parts nearly pure white, the sides and flanks shaded or streaked with grayish; under tail coverts, axillaries, and under wing coverts buffy. Wing, 104, (female) 101; tail, 94–95; bill, 18.

*Material examined*.—Peru: Eten, 3; Tembladera, 2; Trujillo, 3; Lima, 1; Ica, 1.

*Saltator albicollis* (not of Vieillot) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 517—Lima; idem, l.c., 1880, p. 198—part, Chepen, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 294, 1886—part, spec. e', Lima.

*Saltator superciliaris* (not *Tanagra superciliaris* Spix) Taczanowski, Orn. Pér., 2, p. 541, 1884—Lima, Chepen, Guadalupe, and Quebrada de Culebras, Peru.

*Saltator similis* (not Lafresnaye and d'Orbigny) Tschudi, Faun. Peru., Orn., p. 209, 1846—Peru.

*Saltator striatipictus immaculatus* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 34, 1919—western Peru (crit.).

*Range*.—Arid Tropical zone of western Peru, from Lambayeque to Ica.

3: Peru (Menocucho, 2; Trujillo, 1).

**\**Saltator albicollis peruvianus* Cory.<sup>1</sup> PERUVIAN SALTATOR.**

*Saltator striatipictus peruvianus* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 345, Aug., 1916—Hacienda Limón, ten miles west of Balsas, Dept. Cajamarca, Peru (type in Field Museum); Bangs and Noble, Auk, 35, p. 463, 1918—Huancabamba, eastern Piura.

*Saltator albicollis* (not of Vieillot) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 229—Guajango; idem, l.c., 1880, p. 198—part, Callacate (crit.); idem, Orn. Pér., 2, p. 542, 1884—Peru (Guajango, Callacate, Socota, Chukcha, San Ignacio); Sclater, Cat. Bds. Brit. Mus., 11, p. 294, 1886—part, spec. d', Guajango; Salvin, Nov. Zool., 2, p. 6, 1895—Viña (Huamachuco) and Malca (Cajabamba).

*Saltator striatipictus* (not of Lafresnaye) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1117, 1912—part, Peru (Guajango, Callacate, Socota, Viña).

*Saltator striatipictus peruvianus* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 33, 1919—Huancabamba, Peru (crit.).

*Range*.—Arid Tropical zone of the upper Marañón Valley and its tributaries.

7: Peru (Hacienda Limón, 10 miles west of Balsas, 6; Balsas, 1).

**Genus RHODOTHTRAUPIS Ridgway<sup>2</sup>**

*Rhodothraupis* Ridgway, Auk, 15, p. 226, 1898—type, by orig. desig., "*Fringilla*" [= *Tanagra*] *celaeno* Lichtenstein.

<sup>1</sup> *Saltator albicollis peruvianus* Cory: Similar to *S. a. immaculatus* in size, but much more greenish above, this color also involving the sides of neck and auriculars; superciliaries much reduced; breast heavily striped with olive green; under tail coverts less buffy. Wing (male), 100–105; tail, 91–94; bill, 18.

This form, as correctly pointed out by Bangs and Penard, closely resembles *S. a. ishmicus* in the heavy olive green streaking below, but the ground color of the under parts is much whiter and less yellowish.

*Additional material examined*.—Peru: Callacate, 1; Guajango, 1; Viña, Huamachuco, 2; La Grama, Libertad, 1; Malca, Cajabamba, 1; Condachaca, Rio Utcubamba, 2.

<sup>2</sup> *Rhodothraupis* Ridgway is nearly related to *Caryothraustes*, but has a much longer, more rounded tail and a more pointed wing.

**\*Rhodothraupis celaeno** (Lichtenstein). CRIMSON-COLLARED GROSBEAK.

*Tanagra celaeno* Lichtenstein, Preis.-Verz. Säug., Vogel, etc., Mexico, p. 2, 1830—Mexico (type, from Papantla, Vera Cruz, in Berlin Museum; descr. of male); Cabanis, Journ. Orn., 11, p. 57, 1863 (reprint).

*Pitylus atro purpuratus* Lafresnaye, Rev. Zool., 1, p. 224, 1838—Mexico (descr. of male; type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 374, 1930).

*Pitylus atro olivaceus* Lafresnaye, Rev. Zool., 1, p. 224, 1838—Mexico (descr. of female; type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 374, 1930).

*Pyrranga mexicana* Lesson, Rev. Zool., 2, p. 41, 1839—Mexico (descr. of male; type in coll. of Dr. Abeillé, Bordeaux); Bonaparte, Consp. Gen. Av., 1, (1), p. 241, 1850—Mexico (ex Lesson).

*Periporphyrus utropurpuratus* Bonaparte, Consp. Gen. Av., 1, (2), p. 503, 1850—Mexico (=male).

*Caryothraustes atro-olivaceus* Bonaparte, Consp. Gen. Av., 1, (2), p. 503, 1850—Mexico (=female).

*Pitylus celaeno* Sclater, Proc. Zool. Soc. Lond., 24, p. 65, 1856—Papantla, Mexico (monog.); idem, Cat. Coll. Amer. Bds., p. 99, 1862—Mexico; idem, Proc. Zool. Soc. Lond., 1864, p. 174—Valley of Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 332, pl. 24 (male), 1884—Papantla and Valley of Mexico; Sclater, Cat. Bds. Brit. Mus., 11, p. 305, 1886—Mexico; Salvin and Godman, Ibis, 1889, p. 238—Vera Cruz (Misantla) and Tamaulipas (Tampico; Sierra Madre, between Ciudad Victoria and Montemorelos); Richmond, Proc. U. S. Nat. Mus., 18, p. 631, 1896—Alta Mira, Tamaulipas; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1120, 1912 (range).

*Rhodothraupis celaeno* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 657, 1910—Puebla, Vera Cruz, San Luis Potosí, and Tamaulipas (monog.); Phillips, Auk, 28, p. 89, 1911—Tamaulipas (Rio Santa, Yerba Buena, Rio Martinez, Santa Leonor, Rio Cruz, Guiaves).

*Range*.—Eastern Mexico, from Tamaulipas and eastern San Luis Potosí (Valles, Jilitla) to Vera Cruz and Puebla (Metlatoyuca).

5: Mexico (Valles, San Luis Potosí, 3; Aldema, Tamaulipas, 1; Ciudad Victoria, Tamaulipas, 1).

Genus **CARYOTHAUSTES** Reichenbach

*Caryothraustes* Reichenbach, Av. Syst. Nat., pl. 78, June, 1850—type, by subs. desig.<sup>1</sup> (Sclater and Salvin, Exot. Orn., p. 167, 1869), "*Pitylus*" [= *Coccothraustes*] *viridis* Vieillot = *Loxia canadensis* Linnaeus.

<sup>1</sup> Gray (Cat. Gen. Subg. Bds., p. 75, 1855) designated *Pitylus atro-olivaceus* Lafresnaye [= *Rhodothraupis celaeno* (Lichtenstein), female] as type, an inadmissible action, since Reichenbach's drawing plainly excludes that species.

**\*Caryothraustes canadensis canadensis** (Linnaeus). GREEN  
GROSBEAK.

*Loria canadensis* Linnaeus, Syst. Nat., 12th ed., 1, p. 304, 1766—based on "Le Gros-bec de Cayenne" Brisson, Orn., 3, p. 229, pl. 11, fig. 3; "Canada" (lapsus)=Cayenne (type, from Cayenne, in coll. of de Réaumur).

*Coccothraustes viridis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 13, p. 547, 1817—"à la Guyane et au Brésil."<sup>1</sup>

*Fringilla cayanensis* Lichtenstein, Verz. Doubl. Berliner Mus., p. 22, 1823—part, ex "*Coccothraustes cayanensis*" Brisson.

*Pitylus personatus* Lesson, Rev. Zool., 2, p. 42, 1838—"Cayennensis" (type in coll. of Abeillé, Bordeaux); idem, Echo du Monde Savant, 12e année, No. 13, p. 296, Feb. 23, 1845—"Cayenne au Brésil" (full description).

*Caryothraustes cayanensis* Bonaparte, Consp. Gen. Av., 1, (2), p. 504, 1850—"Brazil" and Cayenne; idem, Bull. Soc. Linn. Normandie, 2, p. 30, 1857—Cayenne.

*Caryothraustes viridis* Cabanis, Mus. Hein., 1, p. 144, 1851—Guiana.

*Pitylus viridis* Sclater, Proc. Zool. Soc. Lond., 24, p. 65, 1856—Cayenne and British Guiana (monog.); idem, Cat. Coll. Amer. Bds., p. 99, 1862—Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 572—Pará, Brazil; idem, Exotic Orn., p. 167, 1869—Cayenne, British Guiana, and Pará (crit.); Salvin, Ibis, 1885, p. 213—British Guiana (Bartica Grove, Merumé Mountains, Camacusa); Sclater, Cat. Bds. Brit. Mus., 11, p. 306, 1886—British Guiana (Bartica Grove, Merumé Mountains), Cayenne (Oyapock), and Pará; Sneath, Journ. Orn., 55, p. 295, 1907—Pará, Santo Antonio do Prata, Ourém (Rio Guamá), Rio Mojú, and Jutahizal (Maranhão), Brazil; Beebe, Our Search for a Wilderness, p. 176, 1910—Hoorie River, British Guiana; Penard, Vog. Guyana, 2, p. 467, 1910—Surinam.

*Pitylus cayanensis* Pelzeln, Orn. Bras., 3, p. 221, 1870—Borba (Rio Madeira), Marabitanas (Rio Negro), and Pará, Brazil (spec. examined).

*Pitylus canadensis* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 677, 1849—British Guiana; Hellmayr, Nov. Zool., 12, p. 276, 1905—Igarapé-Assú, Pará; Berlepsch, l.c., 15, p. 116, 1908—Cayenne; idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1119, 1912—"Orinoco-Delta," British Guiana, Cayenne, and northeastern Brazil; Sneath, Bol. Mus. Goeldi, 8, p. 461, 1914—Pará, Providencia, Benevides, Santa Isabel, Peixe-Boi, Santo Antonio do Prata, Rio Guamá (Ourém), Rio Mojú, Rio Tocantins (Baião), and Maranhão, Brazil; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 61, 1926—Tury-Assú, Maranhão.

*Pitylus canadensis canadensis* Hellmayr, Nov. Zool., 13, p. 359, 1906—Santo Antonio do Prata, Pará; idem, l.c., 17, p. 280, 1910—Borba, Rio Madeira; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 15, 88, 1912—Peixe-Boi and Ipitinga, Pará, and Pará localities; Beebe, Trop. Wild Life, 1, p. 136, 1917—Bartica, British Guiana; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Pará, Rio Inhangapy, and Castanhal, Brazil.

<sup>1</sup> The description of the "male" appears to have been based upon Cayenne birds. The alleged "female" obviously does not belong here at all.

*Caryothraustes canadensis* Chubb, Bds. Brit. Guiana, 2, p. 448, 1921—Ituri-bisci River, Supenaam, Bartica, Kamakabra Creek, Mazaruni River, Tiger Creek, Merumé Mountains, and Camacusa.

*Caryothraustes canadensis canadensis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 290, 1929—Tury-assú, Maranhão.

*Range*.—French, Dutch, and British Guiana, and northeastern Brazil, from northern Maranhão (Tury-assú, Jutahizal) west to the Rio Negro (Marabitanas) and the lower Rio Madeira (Borba).<sup>1</sup>

9: British Guiana (Caramang River, 1; Mazaruni River, 3; Potaro, 1; Merumé Mountains, 1); French Guiana (Saint Laurent du Maroni, 1); Brazil (Sacramento, Pará, 1; Tury-assú, Maranhão, 1).

***Caryothraustes canadensis frontalis* (Hellmayr).<sup>2</sup> BLACK-FRONTED GREEN GROSBEAK.**

*Pitylus canadensis frontalis* Hellmayr, Nov. Zool., 12, p. 277, 1905—São Lourenço, Pernambuco, Brazil (type in Tring Collection, now in the American Museum of Natural History, New York); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1119, 1912—Pernambuco and Ceará.

*Caryothraustes canadensis frontalis* Ihering, Cat. Faun. Braz., 1, p. 373, 1907—Pernambuco.

*Pitylus brasiliensis* (not *Caryothraustes brasiliensis* Cabanis) Sclater, Cat. Bds. Brit. Mus., 11, p. 306, 1886—part, descr. and spec. a, b, Pernambuco.

*Range*.—Northeastern Brazil, from Pernambuco to Ceará.

**\**Caryothraustes canadensis brasiliensis* Cabanis.<sup>3</sup> BRAZILIAN GREEN GROSBEAK.**

*Caryothraustes brasiliensis* Cabanis, Mus. Hein., 1, p. 144, Oct., 1851—Bahia, Brazil (type in Heine Collection, now in Municipal Museum, Halberstadt); Burmeister, Syst. Uebers. Th. Bras., 3, p. 208, 1856—Rio de Janeiro and Nova Friburgo; Cabanis, Journ. Orn., 22, p. 64, 1874—Cantagallo, Rio de Janeiro.

<sup>1</sup> Birds from the Pará region and a single male from the Rio Negro are inseparable from Guianan specimens. One from the Rio Madeira (Borba) is unusually large (wing, 93), but is closely approached by another from British Guiana (Caramang River). Whether the trade skins in the Berlepsch Collection supposed to be from the "Orinoco delta" really came from Venezuela remains to be corroborated.

*Additional material examined*.—French Guiana: Cayenne, 4.—British Guiana: Bartica Grove, 1; Caramang River, 2; Mines district, 3.—Brazil: Igarapé-Assú, Pará, 3; Pará, 1; Bemfica, 1; Santo Antonio do Prata, 2; Peixe-Boi, Pará, 5; Ipitinga, Rio Acará, 1; Borba, Rio Madeira, 1.

<sup>2</sup> *Caryothraustes canadensis frontalis* (Hellmayr): Similar to *C. c. brasiliensis* and about the same size, but with a conspicuous black frontal band, and under parts brighter yellow. Wing, 92–94; tail, 75–81; bill, 16½–18.

*Material examined*.—Brazil: Pernambuco: São Lourenço, 1; Pernambuco, 2.

<sup>3</sup> *Caryothraustes canadensis brasiliensis* Cabanis: Very close to *C. c. canadensis*, but larger, especially the tail longer; bill stouter; anterior crown brighter yellow, more contrasting with the green back. Wing, 91–96; tail, 75–82; bill, 16½–17½.

*Material examined*.—Brazil: Bahia, 15; Rio de Janeiro, 2; unspecified, 4.

*Fringilla cayanensis* Lichtenstein, Verz. Doubl. Berliner Mus., p. 22, 1823—part, hab. Brazil.

*Fringilla viridis* (not *Coccothraustes viridis* Vieillot) Wied, Beitr. Naturg. Bras., 3, (1), p. 555, 1830—Rio Ilhéos, southern Bahia.

*Pitylus brasiliensis* Sclater, Proc. Zool. Soc. Lond., 24, p. 66, 1856—Bahia (monog.); idem, Cat. Coll. Amer. Bds., p. 99, 1862—Brazil; Sclater and Salvin, Exot. Orn., p. 168, 1869—southeastern Brazil (crit.); Pelzeln, Orn. Bras., 3, p. 221, 1870—Rio de Janeiro; Sclater, Cat. Bds. Brit. Mus., 11, p. 306, 1886—part, spec. c-i, Bahia and Nova Friburgo; Ihering, Rev. Mus. Paul., 4, p. 152, 1900—Cantagallo and Nova Friburgo, Rio.

*Pitylus canadensis brasiliensis* Hellmayr, Nov. Zool., 12, p. 276 (in text), 1905—Rio de Janeiro to Bahia (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1119, 1912—Bahia to Rio de Janeiro.

*Caryothraustes canadensis brasiliensis* Ihering, Cat. Faun. Braz., 1, p. 373, 1907—Bahia and Porto Cachoeiro, Espirito Santo (range excl. of Pernambuco).

*Range*.—Wooded region of southeastern Brazil, from southern Bahia (Rio Ilhéos) to Rio de Janeiro.

1: Brazil (Santo Amaro, Bahia, 1).

### ***Caryothraustes canadensis simulans* Nelson.<sup>1</sup> CANA GREEN GROSBEAK.**

*Caryothraustes canadensis simulans* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 16, Sept., 1912—Cana, eastern Panama (type in U. S. National Museum).

*Range*.—Tropical zone of extreme eastern Panama (Cana, Darien).

### **\**Caryothraustes poliogaster scapularis* (Ridgway).<sup>2</sup> LESSER BISHOP GROSBEAK.**

*Pitylus poliogaster scapularis* Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Angostura, Costa Rica (nomen nudum); Ridgway, Proc. U. S. Nat. Mus., 10, p. 586, Aug., 1888—Los Sábalos, Nicaragua (type in U. S. National Museum); Richmond, l.c., 16, p. 491, 1893—Rio Frio, Costa

<sup>1</sup> *Caryothraustes canadensis simulans* Nelson: Resembling *C. c. frontalis* in black frontal band, but obviously much smaller; black area on chin and throat more extensive, and back paler, more of a yellowish olive green. Wing (adult male), 86; tail, 66; bill, 18.

This form, which we have not seen, is known from the single type only. The reappearance of a representative of this group in eastern Panama is quite remarkable, and it may yet develop that the yellow-bellied section of *Caryothraustes* is much more closely related to *C. poliogaster* than was hitherto suspected. Additional material of *C. c. simulans* doubtless will contribute to determining this relationship.

<sup>2</sup> A race of very doubtful validity, the supposed differences being to a large extent obliterated by individual variation. Some specimens from the Isthmus of Panama and eastern Costa Rica have the scapulars and rump plain slate gray, and are, to all intent, indistinguishable from Guatemalan skins of true *poliogaster*. Further material may prove *scapularis* to be inseparable.

Rica, and Rio Escondido, Nicaragua (habits); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1120, 1912—southern Honduras to Panama.

*Pitylus poliogaster* (not of Du Bus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 352—Isthmus of Panama; Salvin, l.c., 1867, p. 141—Santa Fé and Santiago de Veragua, Veraguas; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 102, 1868—Angostura, Costa Rica; Sclater and Salvin, Exot. Orn., p. 168, 1869—part, Costa Rica, Veraguas, and Panama; Salvin, Ibis, 1872, p. 317—Chontales, Nicaragua; Nutting, Proc. U. S. Nat. Mus., 6, p. 400, 1883—Los Sábalos, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 333, 1884—part, Nicaragua to Panama; Sclater, Cat. Bds. Brit. Mus., 11, p. 307, 1886—part, spec. f-l, Nicaragua (Chontales), Costa Rica (Tucurríqui), and Panama (Santiago de Veragua, Santa Fé, Panama).

*Caryothraustes poliogaster scapularis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 656, 1901—southern Honduras (Segovia River) to Panama (monog.); Carriker, Ann. Carnegie Mus., 6, p. 879, 1910—Costa Rica (Bonilla, Pacuarito, Jiménez, La Vijagua, Carrillo, El Hogar); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 461, 1928—Boquete Trail, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 338, 1931—Almirante and Boquete Trail, Panama; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 242, 1932—Eden, Nicaragua; Stone, l.c., p. 340, 1932—Segovia River, Honduras.

*Caryothraustes poliogaster poliogaster* Carriker, Ann. Carnegie Mus., 6, p. 879, 1910—Carrillo, Costa Rica (crit.).

**Range.**—From the southern border of Honduras (Segovia River) through Caribbean Nicaragua and Costa Rica to the Canal Zone of Panama.

4: Costa Rica (Limón, 3; Guácimo, 1).

**\*Caryothraustes poliogaster poliogaster** (Du Bus). BISHOP GROSBEAK.

*Pitylus poliogaster* Du Bus, Bull. Acad. Roy. Sci. Belg., 14, (2), p. 105, 1847—Guatemala (type in Brussels Museum); idem, Rev. Zool., 11, p. 245, 1848—Guatemala (reprint); Sclater, Proc. Zool. Soc. Lond., 24, p. 66, 1856—Mexico ("Cosamaluapan," vicinity of Córdoba) and Guatemala (monog.); idem, l.c., 24, p. 302, 1856—Córdoba; idem, l.c., 27, p. 376, 1859—Choapam, Teotalcingo, and Playa Vicente, Oaxaca, Mexico; Sclater and Salvin, Ibis, 1860, p. 32—Coban, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 99, 1862—Choctum (Guatemala) and Mexico; Sclater and Salvin, Exot. Orn., p. 168, 1869—part, southern Mexico and Guatemala; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 549, 1869—hot region of Vera Cruz; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—Honduras; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 44, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 333, 1884—part, Mexico (Cosamaloapam, Córdoba, Choapam, Teotalcingo, Playa Vicente, Vera Cruz), British Honduras (Belize), Guatemala (Choctum, "Yaxcabnal," Kamkal), and Honduras (San



- Pedro); Sclater, Cat. Bds. Brit. Mus., 11, p. 307, 1886—part, spec. a-e, Mexico, Guatemala (Choctum, Kamkhal, Yaxcamnal), and British Honduras (Belize); Lantz, Trans. Kansas Acad. Sci., 16, p. 223, 1899—Santo Tomás, Guatemala; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1120, 1912—Mexico to Honduras (San Pedro, Santa Ana).  
*Pitylus flavo cinereus* Cassin, Proc. Acad. Nat. Sci. Phila., 4, p. 67, June, 1848—"South America" (type in coll. of the Academy of Natural Sciences, Philadelphia; cf. Stone, l.c., 51, p. 36, 1899).  
*Caryothraustes episcopus* Bonaparte, Consp. Gen. Av., 1, (2), p. 504, end of 1850—Cosamaluapan, Vera Cruz, Mexico (type in Berlin Museum).  
*Caryothraustes poliogaster poliogaster* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 655, 1901—southern Mexico to northern Honduras (monog.); Peters, Auk, 30, p. 380, 1913—thirty miles north of Camp Mengel, Quintana Roo; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 485, 1927—Presidio, Vera Cruz; Austin, l.c., 69, p. 389, 1929—Augustine, British Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 353, 1932—Secanquim and Chimoxan, Guatemala; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 340, 1932—Santa Ana, Honduras.

*Range*.—Tropical zone of southeastern Mexico, in states of Vera Cruz and Oaxaca; British Honduras; Caribbean Guatemala, and northern Honduras (Santa Ana, San Pedro).<sup>1</sup>

4: Guatemala (Escobas, Izabal, 2; unspecified, 2).

***Caryothraustes humeralis* (Lawrence).<sup>2</sup> YELLOW-SHOULDERED GROSBEAK.**

- Pytilus (Caryothraustes) humeralis* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 467, 1867—"New Granada, Santa Fé de Bogotá" (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York).  
*Pitylus humeralis* Sclater and Salvin, Exot. Orn., p. 167, pl. 84, 1869—"Bogotá" and Rio Napo, Ecuador (monog.); Sclater, Cat. Bds. Brit. Mus., 11, p. 307, 1886—Colombia ("Bogotá") and Ecuador (Rio Napo, Sarayacu); Snethlage, Journ. Orn., 56, p. 11, 1908—Bom Lugar, Rio Purús, Brazil (spec. examined); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1120, 1912—"Bogotá," eastern Ecuador (Saracayu, Rio Napo), and Brazil (Rio Purús); Snethlage, Bol. Mus. Goeldi, 8, p. 461, 1914—Rio Purús.  
*Saltator humeralis* Chapman, Bull. Amer. Mus. N. H., 55, p. 616, 1926—eastern Ecuador (Rio Napo).

<sup>1</sup> Three adults from Honduras (Palmar, Santa Ana) I am unable to separate from a Guatemalan series.

<sup>2</sup> *Caryothraustes humeralis* (Lawrence) probably deserves generic separation. In structural characters it is somewhat intermediate between *Saltator* and *Caryothraustes*, though nearer the latter, from which it chiefly differs by slenderer bill with more arched culmen. While the general style of coloration shows certain analogies to *C. poliogaster*, the black-and-white banded median portion of the throat and the similarly marked rictal stripe constitute unique features in this group of birds.

*Range*.—Upper Amazonia, from the eastern base of the eastern Andes of Colombia ("Bogotá") through eastern Ecuador (Rio Napo, Sarayacu) to western Brazil (Rio Purús).<sup>1</sup>

### Genus PERIPORPHYRUS Reichenbach<sup>2</sup>

*Periporphyrus* Reichenbach, Av. Syst. Nat., pl. 77, June, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 75, 1855), *Loxia erythromelas* Gmelin.

#### \**Periporphyrus erythromelas* (Gmelin). RED-AND-BLACK GROSBEAK.

*Loxia erythromelas* Gmelin, Syst. Nat., 1, (2), p. 859, 1789—based on "Black-headed Grosbeak" Latham, Gen. Syn. Bds., 2, (1), p. 150, pl. 43 (= male); Cayenne (descr. of male and female; cotypes in coll. of Sir A. Lever, male type now in Vienna Museum examined).<sup>3</sup>

*Periporphyrus erythromelas* Bonaparte, Consp. Gen. Av., 1, (2), p. 503, 1850—Cayenne; Ihering, Cat. Faun. Braz., 1, p. 372, 1907 (range); Chubb, Bds. Brit. Guiana, 2, p. 446, 1921—Ituribisci River, Supenaam, Makauria River, Abary, Mazaruni, Demerara, Caramang River, Camacusa, Roraima, and Aremu River.

*Pitylus erythromelas* Sclater, Proc. Zool. Soc. Lond., 24, p. 65, 1856—Cayenne and Pará (monog.); idem, Cat. Coll. Amer. Bds., p. 98, 1862—Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 572—River Capim, Pará; Salvin, Ibis, 1885, p. 213—Camacusa, British Guiana; Sclater, Cat. Bds. Brit. Mus., 11, p. 305, 1886—British Guiana (Demerara, Camacusa, Roraima), Cayenne, and Brazil (Capim River); Goeldi, Ibis, 1903, pp. 486, 498—Rio Capim, Pará; Hellmayr, Nov. Zool., 12, p. 276, 1905—Santo Antonio do Prata, Pará; Snethlage, Journ. Orn., 55, p. 295, 1907—Santo Antonio do Prata and Rio Capim, Pará; Berlepsch, Nov. Zool., 15, p. 118, 1908—Cayenne; Penard, Vog. Guyana, 2, p. 467, 1910—Surinam; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 88, 1912—Pará localities; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1119, 1912 (range); Snethlage, Bol. Mus. Goeldi, 8, p. 461, 1914—Peixe-Boi, Ananindeua, Santo Antonio do Prata, and Rio Capim (Resacca), Brazil; Beebe, Trop. Wild Life, 1, p. 136, 1917—Bartica, British Guiana; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Castanhal, Pará.

<sup>1</sup> A single adult male from the upper Rio Purús (Bom Lugar, July 17, 1903) merely differs from more northern specimens by slightly darker greenish back.

*Material examined*.—Colombia: "Bogotá," 2.—Ecuador: Sarayacu, 2.—Brazil: Bom Lugar, Rio Purús, 1.

<sup>2</sup> As set forth by Ridgway (Bull. U. S. Nat. Mus., 50, Part 1, p. 32, 1901), this monotypic group may be separated from *Caryothraustes* by proportionately larger bill (culmen equal to, or longer than, tarsus) and somewhat differently shaped mandibular tomium.

<sup>3</sup> The specimen was omitted by Pelzeln in the list of birds acquired by the Vienna Museum at the sale of the Leverian Museum (Ibis, 1873).

*Range*.—French, Dutch, and British Guiana, and northeastern Brazil (Pará district).<sup>1</sup>

2: British Guiana (Mazaruni River, 2).

### Genus PITYLUS Cuvier

*Pitylus* Cuvier, Règne Animal, nouv. éd., 1, p. 413, 1829—type, by subs. desig. (Gray, List Genera Bds., p. 44, 1840), *Loxia grossa* Linnaeus.

*Cissurus* Reichenbach, Av. Syst. Nat., pl. 77, June, 1850—type, by subs. desig. (Sclater, Cat. Bds. Brit. Mus., 11, p. 303, 1886), *Loxia fuliginosa* Daudin.

*Pyrorhamphus* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 85, Jan., 1901—type, by monotypy, *Pyrorhamphus Berlepschianus* Bertoni=*Loxia fuliginosa* Daudin.

### \**Pitylus grossus saturatus* Todd.<sup>2</sup> SLATE-COLORED GROSBEAK.

*Pitylus grossus saturatus* Todd, Proc. Biol. Soc. Wash., 35, p. 91, July, 1922—Guácimo, Costa Rica (type in the Carnegie Museum, Pittsburgh); Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 229, 1922—Mount Sapo and Rio Esnápe, Darien; Peters, l.c., 71, p. 338, 1931—Guabo and Crimacola, Almirante Bay, Panama; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 242, 1932—Santa Rosita, Nicaragua.

*Pitylus grossus* (not *Loxia grossa* Linnaeus) Sclater, Proc. Zool. Soc. Lond., 23, p. 154, 1855—"Bogotá," Colombia; idem, l.c., 24, p. 64, 1856—part, "Bogotá"; idem, l.c., 28, p. 293, 1860—Esmeraldas, Ecuador; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 140—falls of the Rio Truando, Colombia; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 298, 1861—Lion Hill, Panama; Sclater, Cat. Coll. Amer. Bds., p. 98, 1862—part, spec. a-c, Esmeraldas, Ecuador, and New Granada; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 352—Panama Railroad (crit.); Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 170—"Paqua," Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1867, p. 141—Santa Fé, Veraguas; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 102, 1868—"Payua," Costa Rica; Salvin, Ibis, 1872, p. 317—Chontales, Nicaragua; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 505—Remedios and Neché, Antioquia, Colombia; Berlepsch and Taczanowski, l.c., 1883, p. 549—Chimbo,

<sup>1</sup> Brazilian birds seem to be inseparable from Guianan specimens.

*Additional material examined*.—French Guiana: Cayenne, 3.—British Guiana: River Caramang, 5; unspecified, 3.—Brazil, Pará: Igarapé-Assú, 2; Santo Antonio do Prata, 3.

<sup>2</sup> *Pitylus grossus saturatus* Todd: Similar to *P. g. grossus*, but general coloration of the males darker slaty blue, and under parts of females dark olive gray, with little, if any, buffy brownish tinge.

While males are not always distinguishable, the grayer ventral surface of the females serves to separate this western form. Birds from the Pacific side of Ecuador and from Colombia (Sipi and "Bogotá") appear to me decidedly referable to *saturatus*, although a few show an approach to the nominate race.

*Additional material examined*.—Costa Rica: Carrillo, 3.—Panama: Veraguas, 1; Lion Hill, 3.—Colombia: Sipi, Chocó, 4; "Bogotá," 4.—Ecuador: CachaJacú, Prov. Esmeraldas, 2; San Javier, Prov. Esmeraldas, 3; Rio Peripa, 3; Chimbo, 1.

Ecuador; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 331, 1884—part, Nicaragua (Chontales), Costa Rica ("Pacuar," "Valza"), Panama (Lion Hill, Santa Fé), Colombia (falls of the Rio Truando, Antioquia, "Bogotá"), and western Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 303, 1886—part, spec. k-v, Ecuador (Esmeraldas, Balzar), Colombia (Nichi, "Bogotá"), Panama, Veraguas (Santa Fé), Costa Rica ("Valza," Tucurríqui), and Nicaragua (Chontales); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Jiménez and Pacuare, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 491, 1893—Rio Escondido, Nicaragua (habits); Hartert, Nov. Zool., 5, p. 483, 1898—Cachaví, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 22, 1899—part, spec. d-f, Rio Peripa, western Ecuador; Bangs, Proc. New Engl. Zool. Cl., 2, p. 33, 1900—Loma del León, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 652, 1901—part, Nicaragua to Colombia and western Ecuador; Ihering, Cat. Faun. Braz., 1, p. 372, 1907—Costa Rica (range in part); Carriker, Ann. Carnegie Mus., 6, p. 880, 1910—Caribbean Costa Rica (Carrillo, Jiménez, La Florida, Guápiles, Guácimo, El Hogar, Rio Sicsola); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1121—Sipi, Chocó, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1118, 1912—part, Nicaragua to Colombia and western Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 561, 1917—Dabeiba, Quibdó, Baudo, San José, Cocal, Barbacoas, and west of Honda, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 276, 1918—Gatún, Panama; Chapman, Bull. Amer. Mus. N. H., 55, p. 615, 1926—part, western Ecuador (Esmeraldas, Rio de Oro, Chimbo, Naránjo, La Chonta, Bucay); Griscom, Bull. Mus. Comp. Zool., 71, p. 184, 1931—Cana, Darien; idem, l.c., 72, p. 372, 1932—Permé, Obaldia, and Ranchon, eastern Panama.

*Range*.—Caribbean side of Nicaragua, Costa Rica, and Panama, Colombia (west of the eastern Andes), and western Ecuador.

4: Costa Rica (Guápiles, 2); Panama (Veraguas, 1); Colombia (Barbacoas, Nariño, 1).

**\*Pitylus grossus grossus (Linnaeus). WHITE-THROATED GROSBEAK.**

*Loxia grossa* Linnaeus, Syst. Nat., 12th ed., 1, p. 307, 1766—based on "Le Gros-bec bleu d'Amérique" Brisson, Orn., 6, Suppl., p. 89, pl. 5, fig. 1; "America"—Cayenne<sup>1</sup> (cotypes in coll. of D. Mauduyt and Madame d'Aligny).

*Pitylus grossus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 677, 1849—Aruka River and coast of British Guiana; idem, Mus. Hein., 1, p. 143, 1851—Guiana; Sclater, Proc. Zool. Soc. Lond., 24, p. 64, 1856—part, Cayenne, British Guiana, and Pebas [Peru] (monog.); idem, l.c., 25, p. 264, 1857—Rio Javarri, Peru; idem, Cat. Coll. Amer. Bds., p. 98, 1862—part, spec. d, e, Cayenne; Pelzeln, Orn. Bras., 3, p. 220, 1870—Rio Madeira (Salto Theotônio, Borba), Rio Negro (Marabitanas), and Pará, Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, pp. 185, 263—

<sup>1</sup> Suggested by Berlepsch and Hartert, Nov. Zool., 9, p. 24, 1902.

Cosnipata (Dept. Cuzco) and Rio Javarrí, Peru; Taczanowski, l.c., 1874, p. 518—Monterico, Peru; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 331, 1884—part, Amazonia, Guiana, and Peru (Monterico, Cosnipata); Taczanowski, Orn. Pér., 2, p. 548, 1884—Peru (Monterico, Cosnipata, Yurimaguas, Rio Javarrí, and between Chachapoyas and Moyobamba); Salvin, Ibis, 1885, p. 213—British Guiana (Bartica Grove, Merumé Mountains, Camacusa); Sclater, Cat. Bds. Brit. Mus., 11, p. 303, 1886—part, spec. a-j, British Guiana (Bartica, Merumé Mts., Camacusa), Cayenne (Oyapock), Peru (Pebas, Rio Javarrí), and eastern Ecuador (Sarayacu); Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—Mapiri, Bolivia; Riker and Chapman, Auk, 7, p. 267, 1890—Santarém, Brazil; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 22, 1899—part, spec. a-c, Rio Zamora, eastern Ecuador; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 652, 1901—part, British Guiana, Cayenne, "eastern Brazil (Pernambuco)," Bolivia, and Peru; Berlepsch and Hartert, Nov. Zool., 9, p. 24, 1902—Suapuré, Nicare, and La Prición, Caura River, Venezuela; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 183, 1904—Maroni, French Guiana; Hellmayr, Nov. Zool., 13, p. 359, 1906—Santo Antonio do Prata, Pará; idem, l.c., 14, p. 7, 1907—Itaitúba, Rio Tapajóz; Ihering, Cat. Faun. Braz., 1, p. 372, 1907 (range in part); Sneath, Journ. Orn., 55, p. 295, 1907—Santo Antonio do Prata, Pará; idem, l.c., 56, pp. 11, 499, 523, 1908—Rio Purús (Bom Lugar), Rio Tapajóz (Villa Braga), and Rio Tocantins (Arumatheua), Brazil; Berlepsch, Nov. Zool., 15, pp. 118, 317, 1908—Ipousin (Approuague River), Cayenne, and Maroni, French Guiana; Hellmayr, Nov. Zool., 17, p. 279, 1910—Calama, Rio Madeira; Penard, Vog. Guyana, 2, p. 466, 1910—Surinam; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1118, 1912—part, eastern Ecuador (Rio Zamora), Peru, Bolivia, Venezuela, Guiana, and Brazil; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 14, 88, 1912—Peixe-Boi and Ipitanga, Pará, Brazil (Pará localities); Sneath, Bol. Mus. Goeldi, 8, p. 460, 1914—Santo Antonio do Prata, Rio Guamá (Ourém), Rio Tocantins (Baião, Arumatheua), Rio Xingú (Forte Ambé), Rio Tapajóz (Villa Braga), Rio Jamauchim (Santa Helena), and Rio Jary (Santo Antonio da Cachoeira), Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 186, 1916—La Unión, Caura, Venezuela; Beebe, Trop. Wild Life, 1, p. 136, 1917—Bartica, British Guiana; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 90, 1918—Altonaweg, Surinam; Chubb, Bds. Brit. Guiana, 2, p. 445, 1921—Ituribisci River, Supenaam, Bartica, Camacabra Creek, Makauria River, Abary River, Mazaruni River, Arawai, and Great Falls of the Demerara; Chapman, Bull. Amer. Mus. N. H., 55, p. 615, 1926—part, eastern Ecuador (below San José, Rio Suno); Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 61, 1926—Tury-assú, Maranhão; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Pará.

*Pitylus grossa* Bonaparte, Consp. Gen. Av., 1, (2), p. 503, 1850—Cayenne and Brazil.

*Pitylus grossus grossus* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 290, 1929—Tury-assú, Maranhão; Naumburg, Bull. Amer. Mus. N. H., 60, p. 349, 1930—Salto Theotônio, Matto Grosso.

*Range*.—French, Dutch, and British Guiana; southern Venezuela (Caura Valley); northern Brazil, east to northern Maranhão (Turyassú),<sup>1</sup> south to the northern confines of Matto Grosso (Salto Theotônio, upper Rio Madeira); eastern Ecuador; eastern Peru; northwestern Bolivia (Mapiri).<sup>2</sup>

2: Peru (Yurimaguas, 1; Rioja, 1).

**\*Pitylus fuliginosus (Daudin).<sup>3</sup> BLACK-THROATED GROSBEAK.**

*Loxia fuliginosa* Daudin, *Traité Élém. Orn.*, 2, p. 372, 1800—"en Amérique"—Rio de Janeiro, Brazil\* (type in Paris Museum).

*Coccothraustes coerulescens* Vieillot, *Nouv. Dict. Hist. Nat.*, nouv. éd., 13, p. 546, 1817—Brazil (type in Paris Museum; cf. Vieillot, *Tabl. Enc. Méth.*, *Orn.*, livr. 93, p. 1016, 1823).

*Fringilla gnatho* Lichtenstein, *Verz. Doubl. Berliner Mus.*, p. 22, 1823—Bahia (type in Berlin Museum); Wied, *Beitr. Naturg. Bras.*, 3, (1), p. 552, 1830—Rio Catolé, Bahia.

*Tanagra psittacina* Spix, *Av. Spec. Nov. Bras.*, 2, p. 44, pl. 57, fig. 2, 1825—"in sylvis Rio de Janeiro proximis" (type lost, formerly in Munich Museum; cf. Hellmayr, *Abhandl. 2. Kl. Bayr. Akad. Wiss.*, 22, No. 3, p. 678, 1906).

*Pitylus atrochalybeus* Jardine and Selby, *Ill. Orn.*, Part 1, pl. 3, Feb., 1827—"Brazils" (type in coll. of Dr. Such).

*Pitylus erythrorynchus* [sic] Swainson, *Nat. Hist. Bds.*, 2, p. 282, 1837—based on Jardine and Selby, *Ill. Orn.*, pl. 3.

*Loxia grossa* (not of Linnaeus) Wied, *Reise Bras.*, 2, pp. 147, 148, 155, 1821—Rio Catolé and Beruga, Bahia.

*Pitylus ardesiacus* Lesson, *Rev. Zool.*, 3, p. 226, 1840—Brazil (location of type not stated; descr. of immature specimen).

*Saltator psittacina* Bonaparte, *Consp. Gen. Av.*, 1, (2), p. 490, 1850—Brazil (ex Spix).

*Pitylus gnatho* Bonaparte, *Consp. Gen. Av.*, 1, (2), p. 503, 1850—Brazil.

*Pitylus coerulescens* Cabanis, *Mus. Hein.*, 1, p. 143, 1851—Brazil: Burmeister, *Syst. Uebers. Th. Bras.*, 3, p. 206, 1856—Nova Friburgo, Rio.

<sup>1</sup> Ridgway's record from Pernambuco is unquestionably erroneous.

<sup>2</sup> Males from northern Brazil agree well with those from Guiana, while females, like others from Peru, are generally more strongly washed with brownish underneath. With the comparatively limited material at hand, I am, however, reluctant to propose any further subdivision.

*Additional specimens examined*.—French Guiana: Ipousin, 1; Cayenne, 4.—British Guiana: Merumé Mountains, 2; Camacusa, 1.—Venezuela: Caura Valley, 5.—Brazil: Pará district, 9; Itaitúba, Rio Tapajóz, 2; Borba, Rio Madeira, 2; Salto Theotônio, Rio Madeira, 1.—Ecuador: Sarayacu, 1; Rio Napo, 2.

<sup>3</sup> *Pitylus fuliginosus* (Daudin) differs from the preceding species by larger size, much more massive bill, and absence of white on the throat. There is not much sexual difference, the female being merely less black on throat and foreneck. Perhaps it is not more than subspecifically distinct.

<sup>4</sup> Suggested as type locality by Berlepsch (*Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1119, 1912).

*Pyrorhamphus berlepschianus* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 85, Jan., 1901—Djaguarasapá, Alto Paraná, Paraguay (type in coll. of A. de W. Bertoni).

*Pitylus fuliginosus* Sclater, Proc. Zool. Soc. Lond., 24, p. 64, 1856—Rio de Janeiro to Bahia (monog.); idem, Cat. Coll. Amer. Bds., p. 99, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 220, 1870—São Paulo (Mattodentro, Butuyurú, Ypanemá); Berlepsch, Journ. Orn., 21, p. 245, 1873—Blumenau, Santa Catharina; Cabanis, l.c., 22, p. 84, 1874—Cantagallo, Rio de Janeiro; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 121, 1885—Taquara and Tocana, Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 304, 1886—Bahia to Rio de Janeiro; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 120, 1899—Mundo Novo, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 159, 1899—São Paulo (São Paulo, Iguapé, Piracicaba); idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 186, 1906—Monte Serrat, Serra do Itatiaia; Ihering, Cat. Faun. Braz., 1, p. 372, 1907—São Paulo (Alto da Serra, São Paulo, Rio Mogy Guassú, Piracicaba, Bebedouro, Iguapé) and Paraná (Ourinho); Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 357, 1909—Serra do Itatiaia; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 382, 1910—Alto Paraná, Paraguay; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1119, 1912—Paraguay (Alto Paraná) and southeastern Brazil (from Bahia to Rio Grande do Sul); Bertoni, Faun. Parag., p. 64, 1914—Alto Paraná; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 188, 1926—Therezina, Paraná; Holt, Bull. Amer. Mus. N. H., 57, p. 315, 1928—Serra do Itatiaia.

*Ptylus* [sic] *fuliginosus* Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 225, 1923—Monte Serrat, Itatiaia.

**Range.**—Wooded region of southeastern Brazil, from Bahia to Rio Grande do Sul, and adjacent parts of Paraguay (Alto Paraná).<sup>1</sup>  
1: Brazil (São Paulo, Victoria, 1).

### Genus GUBERNATRIX Lesson

*Gubernatrix* Lesson, Compl. Oeuvr. Buffon, 8, p. 295, 1837—type, by monotypy, *Emberiza gubernatrix* Temminck.

*Lophocorythus* Gray, List Gen. Bds., p. 47, 1840—type, by orig. desig., *Emberiza gubernatrix* Temminck.

### *Gubernatrix cristata* (Vieillot). YELLOW CARDINAL.

*Coccothraustes cristata* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 13, p. 421, 1817—based on "Crestudo amarillo" Azara, No. 129; 29° lat. south, Argentina=Corrientes.

*Emberiza gubernatrix* Temminck, Nouv. Rec. Pl. Col., livr. 11, pls. 63 (male), 64 (female), 1821—Buenos Aires (types in coll. of Madame Freycinet); Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 73, 1837—"Rio-Janeiro, imper. brasiliano," errore (the specimens examined in the

<sup>1</sup> Additional material examined.—Brazil: Bahia, 2; Rio de Janeiro, 2; Mattodentro, São Paulo, 2; Butuyurú, São Paulo, 1; Ypanemá, São Paulo, 3; Iguapé, São Paulo, 1; Taquara do Mundo Novo, Rio Grande do Sul, 2.

Paris Museum are from Corrientes); Gould, in Darwin, Zool. Beagle, 3, Birds, p. 89, 1839—on the banks of the Paraná, near Santa Fé.

*Emberiza cristatella* Vieillot, Tabl. Enc. Méth., Orn., livr. 93, p. 928, 1823—based on "Crestudo amarillo" Azara, No. 129; 29° lat. south, Argentina=Corrientes.

*Gubernatrix cristatella* Hartlaub, Syst. Ind. Azara, p. 9, 1847 (ex Azara No. 129); Bonaparte, Consp. Gen. Av., 1, (2), p. 470, 1850—"Brazil"; Burmeister, Syst. Uebers. Th. Bras., 3, p. 257, 1856—supposedly southern Brazil; idem, Journ. Orn., 8, p. 254, 1860—Paraná and Córdoba; idem, Reise La Plata St., 2, p. 482, 1861—near Paraná and more common near Córdoba; Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 632—Conchitas, Buenos Aires; Sclater, l.c., 1872, p. 548—Rio Negro, Patagonia (September); Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; White, Proc. Zool. Soc. Lond., 1883, p. 38—Cosquin, Bull. Barrows, Bull. Nutt. Orn. Cl., 8, p. 130, 1883—Concepción del Uruguay, Entre Ríos; Sclater and Hudson, Arg. Orn., 1, p. 55, 1888—Buenos Aires (spring visitant); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Aplin, Ibis, 1894, p. 169—Rincón of the Arroyo Grande, Uruguay.

*Gubernatrix cristata* Sharpe, Cat. Bds. Brit. Mus., 12, p. 815, 1888—Rio Negro, Uruguay, "Paraguay," and Córdoba (Cosquin); Ihering, Anuario Est. Rio Grande do Sul, 16, p. 122, 1899—Jaguarão, Rio Grande do Sul (spec. examined); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 181, 1902—Tucumán; idem, Revist. Letr. y Cienc. Soc., 3, No. 13, p. 45, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 393, 1907 (range); Hartert and Venturi, Nov. Zool., 16, p. 182, 1909—Tucumán and Barracas al Sud, Buenos Aires (eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 401, 1910 (range in Argentina); Bertoni, Faun. Parag., p. 63, 1914—Corrientes and (?) Paraguay; Marelli, El Hornero, 1, p. 80, 1918—Curuzú-Cuatí, Corrientes; Tremoleras, l.c., 2, p. 24, 1920—Canelones and Minas, Uruguay; Serié and Smyth, l.c., 3, p. 54, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 174, 1923—Conhelo, F. C. O.; Renard, l.c., 3, p. 287, 1924—San Cristóbal, Santa Fé; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 661, 1924—Barracas al Sud, Buenos Aires; Wetmore, Bull. U. S. Nat. Mus., 133, p. 398, 1926—Victorica, Pampa, and Uruguay (San Vicente, Paso Alamo, Lazcano); Friedmann, Bull. Mus. Comp. Zool., 68, p. 229, 1927—Santa Elena and San Joaquin, Entre Ríos; Stone, Rep. Princ. Univ. Exp. Patag., 2, p. 847, 1928—Rio Negro; Castellanos, El Hornero, 5, p. 329, 1934—Estancia El Bosque, Valle de los Reartes, Córdoba.

*Range.*—Extreme southern Brazil, in State of Rio Grande do Sul (Jaguarão, São Lourenço); Uruguay; northern Argentina, from Entre Ríos, Santa Fé, and Tucumán (two records) south to Córdoba, Pampa, and Buenos Aires (as far as the mouth of the Rio Negro).<sup>1</sup>

<sup>1</sup> No authentic record exists for its occurrence in Paraguay proper.

*Additional material examined.*—Brazil: Rio Grande do Sul: Jaguarão, 1 (adult male); São Lourenço, 1 (adult female).—Argentina: Corrientes, 2; Barracas al Sud, Buenos Aires, 1; Tucumán, 1.



## Genus PAROARIA Bonaparte

*Paroaria* Bonaparte, Giorn. Arcad., 52, p. 206, 1831; idem, Saggio Distr. Met. Anim. Vertebr., p. 141, 1831 (reprint)—type, by orig. desig., *Fringilla cucullata* Vieillot=*Loxia coronata* Miller.

*Calyptrophorus* Cabanis, Arch. Naturg., 13, (1), p. 329, 1847—new name for *Paroaria* Bonaparte.

*Calyptrophorus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 678, pub. 1849—emendation.

*Coccopsis* Reichenbach, Av. Syst. Nat., pl. 77, June, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 74, 1855), *Tanagra gularis* Linnaeus.<sup>1</sup>

\**Paroaria coronata* (Miller). CRESTED CARDINAL.

*Loxia coronata* Miller, Var. Subj. Nat. Hist., Part 1, pl. 2, 1776—no locality indicated.

*Loxia cucullata* (not of Boddaert, 1783) Latham, Ind. Orn., 1, p. 378, 1790—based on *Loxia coronata* Miller; "Le Cardinal Dominiquain hupé, de la Louisiane" Daubenton, Pl. Enl., pl. 103; and "The Crested Cardinal" Brown, New Illustr. Zool., pl. 23.

*Loxia coronata* var. *L. Dominicanae* Shaw, in Miller and Shaw, Cim. Phys., p. 4, pl. 2A, 1796—"a native of South America, and particularly of Brazil."

*Fringilla cucullata* Lichtenstein, Verz. Doubl. Berliner Mus., p. 22, 1823—Montevideo, Uruguay; Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 82, 1837—Mojos, Bolivia, and Corrientes (spec. in Paris Museum examined); Hartlaub, Syst. Ind. Azara, p. 9, 1847—Paraguay and south (ex Azara, No. 128).

*Calyptrophorus cucullatus* Cabanis, Arch. Naturg., 13, (1), p. 329, 1847; idem, Mus. Hein., 1, p. 145, 1851—Brazil.

*Paroaria cucullata* Bonaparte, Consp. Gen. Av., 1, (2), p. 471, 1850—Brazil and Paraguay; Burmeister, Syst. Uebers. Th. Bras., 3, p. 210, 1856—Montevideo;<sup>2</sup> idem, Journ. Orn., 8, p. 254, 1860—Paraná, Banda Oriental, and Tucumán; idem, Reise La Plata St., 2, p. 482, 1861—Montevideo, Paraná and Tucumán; Sclater, Cat. Coll. Amer. Bds., p. 108, 1862—Bolivia; Pelzeln, Orn. Bras., 3, p. 228, 1870—"Rio de Janeiro" (cage-birds; spec. in Vienna Museum examined); Doering, Period. Zool. Arg., 1, p. 252, 1874—Barrancas, Rio Guayquiraro, Corrientes; Durnford, Ibis, 1877, p. 171—Baradero (Rio Paraná) and Conchitas, Buenos Aires; Gibson, Ibis, 1880, p. 19—Cape San Antonio, Buenos Aires (nest and eggs); White, Proc. Zool. Soc. Lond., 1882, p. 598—Buenos Aires; Barrows, Bull. Nutt. Orn. Cl., 8, p. 129, 1883—Concepción del Uruguay, Entre Ríos; Sharpe, Cat. Bds. Brit. Mus., 12, p. 809, pl. 16, fig. 1, 1888—Uruguay (Maldonado), Buenos Aires (Conchitas), Entre Ríos (Paraná), and Bolivia;

<sup>1</sup> The recognition of a separate genus for *P. gularis* and allies appears to me unwarranted.

<sup>2</sup> The extension of range to the Rio São Francisco, Minas Geraes, is erroneous. The observations of a cardinal in that region by Auguste de Sainte-Hilaire (Voy. Prov. Rio de Janeiro et Minas Geraes, 2, p. 422, 1830) quoted by Burmeister refer to *Paroaria dominicana* (Linnaeus), as has already been noticed by Reinhardt (Vidensk. Medd. Naturhist. Foren., 1870, p. 409).

Bartlett, Monog. Weaver-Birds & Finches, Part 1, pl. 1, 1888 (monog.); Sclater and Hudson, Arg. Orn., 1, p. 47, 1888—Argentina (habits); Allen, Bull. Amer. Mus. N. H., 2, p. 84, 1889—Trinidad, El Beni, Bolivia; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Holland, Ibis, 1890, p. 425; idem, Ibis, 1891, p. 16—Estancia Espartillar, Buenos Aires; Kerr, Ibis, 1892, p. 125—Fortín Donovan, lower Pilcomayo; Holland, Ibis, 1892, p. 197—Estancia Espartillar, Buenos Aires; Aplin, Ibis, 1894, p. 168—Santa Elena, Uruguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 6, 1895—Puerto Pagani, Rio Apa, Paraguay; idem, l.c., 12, No. 292, p. 8, 1897—Caiza, Bolivia; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 122, 1899—Jaguarão, Rio Grande do Sul, Brazil; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 181, 1902—Tucumán; Lönnberg, Ibis, 1903, p. 471—Colonia Crevaux, Tarija, Bolivia; Baer, Ornith., 12, p. 218, 1904—Santa Ana, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 258, 1904—Orán, Salta; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 45, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 392, 1907—"São Paulo" (range); Hartert and Venturi, Nov. Zool., 16, p. 182, 1909—Corrientes (eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 400, 1910 (range in Argentina); Chubb, Ibis, 1910, p. 640—Sapucay, Paraguay; Grant, Ibis, 1911, p. 96—Los Ynglases, Buenos Aires, and Bahía Negra, Alto Paraguay; Bertoni, Faun. Parag., p. 64, 1914—Paraguay; Hussey, Auk, 33, p. 398, 1916—Las Talas, Buenos Aires; Gibson, Ibis, 1918, p. 384—Cape San Antonio, Buenos Aires; Marelli, El Hornero, 1, p. 80, 1918—Curuzú Cuatiá, Corrientes; Giacomelli, l.c., 3, p. 69, 1923—La Rioja; Bertoni, l.c., 3, p. 397, 1926—Puerto Bertoni, Paraguay; Renard, l.c., 4, p. 316, 1929—Puerto Belgrado, near Bahía Blanca, Buenos Aires (acclimatized).

*Paroaria dominicana* (not *Loxia dominicana* Linnaeus) Dagleish, Proc. Roy. Phys. Soc. Edin., 6, p. 246, pl. 7, fig. 5 (egg), 1881—Estancia de la Tala, Durazno, Uruguay.

*Paroaria cristata* Mathews and Iredale,<sup>1</sup> Austr. Av. Rec., 3, p. 38, 1915—new name for *Loxia cucullata* Latham, preoccupied; Dabbene, El Hornero, 1, p. 246, 1919—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 24, 1920—Uruguay (Canelones, Minas, Maldonado, San José, Flores, Florida, Treinta y Tres, Cerro Largo); Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 172, 1923—Escobar, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 661, 1924—Godoy, Buenos Aires; Wilson, El Hornero, 3, p. 362, 1926—General López, Santa Fé; Wetmore, Bull. U. S. Nat. Mus., 133, p. 399, 1926—Santa Fé, Chaco (Las Palmas), Formosa (Formosa, Riacho Pilaga), Buenos Aires (Lavalle), Paraguay (west of Puerto Pinasco), and Uruguay (La Paloma, San Vicente, Lazcano); Friedmann, Bull. Mus. Comp. Zool., 68, p. 230, 1927—Concepción, Tucumán, and Santa Elena, Entre Ríos.

*Paroaria rubrifacies* Collin and Hartert, Nov. Zool., 34, p. 51, 1927—new name for *Loxia cucullata* Latham, preoccupied.

<sup>1</sup>*Fringilla Dominicana Cristata* Boddaert (Tabl. Pl. Enl., p. 7, Dec., 1783), based on Daubenton, Pl. Enl., pl. 103, is clearly but the latinized form of Buffon's vernacular name "Cardinal Dominicain huppé," and not proposed in binomial sense.

*Paroaria coronata* Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 261, 1930—Formosa (Lapango, San José, Tapikiolé) and Bolivia (La Crecencia, Santa Cruz; Fortín Esteros, Tarija) (nomencl.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 359, 1930—Paraguay (Puerto Pinasco) and Matto Grosso (Descalvados); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 397, 1934—Descalvados, Matto Grosso; Laubmann, Verh. Orn. Ges. Bay., 20, p. 329, 1934—Est. La Geraldina, Santa Fé.

*Range*.—Eastern Bolivia; Paraguay; Uruguay; extreme southern Brazil (Descalvados, Matto Grosso; Jaguarão, Rio Grande do Sul); northern Argentina, south to La Rioja, Córdoba, and Buenos Aires.<sup>1</sup>

23: Uruguay (Treinta y Tres, 1; Dept. Soriano, 6; Polanco, Minas, 4; Dept. Rocha, 3; Dept. Colonia, 1; Queb. de los Cuervos, 2); Bolivia (Trinidad, Rio Mamoré, 1); Argentina (Concepción, Tucumán, 3; Santa Fé, 1; Paraná, Entre Ríos, 1).

**\**Paroaria dominicana* (Linnaeus). DOMINICAN CARDINAL.**

*Loria dominicana* Linnaeus, Syst. Nat., 10th ed., 1, p. 172, 1758—Brazil; Odhelius, Amoen. Acad., 4, p. 242, 1759 (type in Upsala Museum; cf. Lönnberg, Bihang Sv. Vetensk.-Akad. Handl., 22, Afd. 4, No. 1, p. 29, 1896; crit.).

*Fringilla larvata* Boddaert, Tabl. Pl. Enl., p. 4, 1783—based on "Cardinal Dominiquain" Daubenton, Pl. Enl., pl. 55, fig. 2; Brazil.

*Fringilla dominicana* Wied, Beitr. Naturg. Bras., 3, (1), p. 594, 1830—near Bahia City, Bahia.

*Paroaria dominicana* Bonaparte, Consp. Gen. Av., 1, (2), p. 471, 1850—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 211, 1856—"bei Bahia, Pará, am Amazonenstrom und . . . bis Guyana" (errore).

*Calyptrophorus dominicanus* Cabanis, Mus. Hein., 1, p. 145, 1851—Brazil.

*Paroaria larvata* Scater, Cat. Coll. Amer. Bds., p. 108, 1862—Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 219—São Romão and Salgado [=Porto do Brejo], Rio São Francisco, Minas Geraes; Forbes, Ibis, 1881, p. 337—Garanhuns (Pernambuco) and Parahyba; Sharpe, Cat. Bds. Brit. Mus., 12, p. 811, pl. 16, fig. 2, 1888—"Rio Claro, Goyáz," "Nova Friburgo," Bahia, and Pernambuco; Ihering, Rev. Mus. Paul., 4,

<sup>1</sup> Brodtkorb (Occas. Pap. Univ. Mich. Mus. Zool., 345, p. 2, Jan. 5, 1937—type, from 265 kilometers west of Puerto Casado, Paraguayan Chaco, in Zool. Mus. Univ. of Mich.) has recently distinguished a smaller race as *P. cristata schulzei*. On examining an ample series of the Crested Cardinal from various parts of its range, I find that the supposed differences in length of wing and tail are nonexistent, but that three (out of five) skins from Bolivia and the Paraguayan Chaco have indeed decidedly smaller bills, though they are exactly matched in that respect by one from Uruguay (Colonia). It appears that more material is needed before any satisfactory subdivision can be made.

*Additional material examined*.—Bolivia: Mojos, 1; La Crecencia, Santa Cruz, 2; Fortín Esteros, Tarija, 2.—Paraguay: lower Pilcomayo, 1; Sapucay, 1; Villa Rica, 2.—Brazil: Jaguarão, Rio Grande do Sul, 1; Descalvados, Matto Grosso, 1.—Argentina: Corrientes, 1; Ajó, Buenos Aires, 10; Barracas al Sud, Buenos Aires, 2; Paraná, Entre Ríos, 3; Santa Ana, Tucumán, 2; San José, Formosa, 2.—Uruguay: Colonia, 1; Santa Elena, 4.

p. 154, 1900—"Nova Friburgo" (ex Sharpe); idem, Cat. Faun. Braz., 1, p. 392, 1907—Bahia (range); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss., 76, p. 83, 1910—Pernambuco (Pão d'Alho, near Recife) and Bahia (Joazeiro; Solidade, near Carnahyba; Bem Bom, Rio São Francisco); idem, l.c., p. 182, 1924—Pernambuco, Rio São Francisco (Bahia), and Rio Parnahyba (Piauhy); Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará.

*Paroaria dominicana* Bartlett, Monog. Weaver Birds & Finches, Part 3, pl. 2, 1889 (monog., range imaginary); Ihering, Rev. Mus. Paul., 9, p. 487, 1914—Cidade da Barra, Bahia (nest and eggs descr.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 304, 1929—Maranhão (São Francisco) and Piauhy (Ibiapaba, Deserto, Arára).

**Range.**—Northeastern Brazil, from Bahia and northern Minas Geraes (along the São Francisco River south to São Romão) north to Ceará, Piauhy, and southern Maranhão (São Francisco, Rio Parnahyba).<sup>1</sup>

9: Brazil (São Francisco, Maranhão, 2; Ibiapaba, Piauhy, 3; Deserto, Piauhy, 1; Arára, Piauhy, 1; Rio do Peixe, near Queimadas, Bahia, 1; "Bahia," 1).

### ***Paroaria humberti* Angelini.<sup>2</sup> HUMBERT'S CARDINAL.**

*Paroaria humberti* Angelini, Boll. Soc. Zool. Ital., (2), 2, p. 17, October, 1901—South America (type in Zoological Museum, Rome, examined); Lepri, l.c., (3), 3, p. 140, col. pl., July, 1915 (crit.).

**Range.**—Unknown.

### ***Paroaria gularis nigro-genis* (Lafresnaye).<sup>3</sup> BLACK-EARED CARDINAL.**

*Nemosia nigro-genis* Lafresnaye, Rev. Zool., 9, p. 273, 1846—"l'embouchure de l'Orénoque," Venezuela (type in coll. of F. de Lafresnaye, now in

<sup>1</sup> The localities "Rio Claro, Goyáz" and "Nova Friburgo, Rio" are unquestionably erroneous. Birds from different parts of the range agree well together, and show very little variation in color.

**Additional material examined.**—Bahia: Solidade, 1; Joazeiro, 1; Bem Bom, Rio São Francisco, 2; unspecified, 18.—Pernambuco: Pão d'Alho, Recife, 1; São Lourenço, 1.—Ceará: unspecified, 2.

<sup>2</sup> *Paroaria humberti* Angelini: Similar to *P. dominicana*, but differs by having the back from hindneck to upper tail coverts uniform black; black instead of light gray scapulars; blacker wings with mere fringes of white on the innermost secondaries (tertials) only; black rectrices without any grayish tinge on the median pair and the edges of the others; slightly paler red of head and throat; finally by rather stouter bill. Wing (adult male), 72½; tail, 78; bill, 14½.

The pectoral feathers show faint indications of blackish apical edges, which I never noticed in *P. dominicana*. On the hindneck only the feathers next to the red crown are basally white, while the Dominican Cardinal has all the nuchal plumage much more extensively white at the base.

The type has lived in captivity, and it is quite possible that *P. humberti* is nothing but a melanistic individual of *P. dominicana*.

<sup>3</sup> *Paroaria gularis nigro-genis* (Lafresnaye) resembles the nominate race in proportions, coloration of bill, as well as in black back and flight-feathers, but

Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 391, 1930).

*Tanagra nigro-aurita* Cassin, Proc. Acad. Nat. Sci. Phila., 4, p. 85, 1848—"Rio Negro," Brazil (type in coll. of the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 35, 1899);<sup>1</sup> idem, Journ. Acad. Nat. Sci. Phila., 1, p. 296, pl. 41, fig. 3, 1848—"Rio Negro."

*Coccopsis nigrogenys* Cabanis, Mus. Hein., 1, p. 145, 1851—"Porto Cabello," Venezuela.<sup>2</sup>

*Paroaria nigrigena* Sclater, Cat. Coll. Amer. Bds., p. 108, 1862—Venezuela; Taylor, Ibis, 1864, p. 83—about Ciudad Bolívar, Rio Orinoco.

*Paroaria nigrigenis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 814, pl. 16, fig. 3, 1888—"Trinidad, Cayenne [errore], and Venezuela"; Delacour, Ibis, 1923, p. 148—Camaguan, Rio Portuguesa, Venezuela (descr. of young).

*Paroaria nigrogenys* Berlepsch and Hartert, Nov. Zool., 9, p. 29, 1902—Altagracia, Ciudad Bolívar, and Caicara, Orinoco (nest and eggs descr.); Berlepsch, l.c., 15, p. 122, 1908—"Cayenne" (ex Sharpe); Penard, Vog. Guyana, 2, p. 405, 1910—"Surinam" (errore); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 198, 1916—Orinoco region (nest, eggs, and plumages).

*Paroaria nigrogenis* Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 209, 1913—La Pedrita (Rio Uracoa), Manimo River, Jocopita (Manimo River), and Caño Corosal, Orinoco delta.

*Range*.—Southern Venezuela, in the valley of the Orinoco from the delta region up to the Apure and Portuguesa rivers.<sup>3</sup>

**\**Paroaria gularis gularis* (Linnaeus). BLACK-THROATED CARDINAL.**

*Tanagra gularis* Linnaeus, Syst. Nat., 12th ed., 1, p. 316, 1766—based on "Le Cardinal d'Amérique" Brisson, Orn., 6, Suppl., p. 67, pl. 4, fig. 4; "Amérique"<sup>4</sup> (type in coll. of M. Mauduyt); Schomburgk, Reisen Brit. Guiana, 1, p. 310, 1847—banks of the Essequibo.

*Tanagra fusca* P. L. S. Müller, Natursyst., Suppl., p. 159, 1776—based on "Tangara brun, d'Amérique" Daubenton, Pl. Enl., pl. 155, fig. 2; [French] Guiana (cf. "Le Rouge-cap" Buffon, Hist. Nat. Ois., 5, p. 23).

differs by having the sides of the head (loral streak, orbicular and auricular regions) black; a small sooty chin-spot; the throat and center of foreneck bright crimson; the lower mandible paler yellow. Besides, the elongated jugular feathers are of a different texture, being more compact, narrower, and decidedly lanceolate.

*Material examined*.—Venezuela, Orinoco River: Altagracia, 10; Caicara, 4; San Fernando, Rio Apure, 2.

<sup>1</sup> Although Stone gives "Pará" as locality, Cassin expressly states that Mr. Wülf received the specimens from the "Rio Negro."

<sup>2</sup> As in the case of other Orinocan species ascribed to Puerto Cabello by Cabanis, the specimens were doubtless secured on the Orinoco, Puerto Cabello being merely their shipping port.

<sup>3</sup> Trade skins are sometimes labeled "Trinidad," no doubt erroneously. The occurrence on the Rio Negro requires corroboration, while the locality "Cayenne" attached to a specimen in the British Museum is altogether unreliable.

<sup>4</sup> Cayenne suggested as type locality by Berlepsch (Nov. Zool., 15, p. 122, 1908).

*Calyptrophorus gularis* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 678, "1848" [=1849]—upper Essequibo River, British Guiana.

*Coccopsis gularis* Cabanis, Mus. Hein., 1, p. 145, 1851—"Venezuela" and Cayenne; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 30, 1857—Cayenne; Chubb, Bds. Brit. Guiana, 2, p. 467, 1921—upper Takutu Mountains, Bonasika River, Essequibo, Arawai River, and Camacusa.

*Paroaria gularis* Bonaparte, Consp. Gen. Av., 1, (2), p. 472, 1850—Guiana; Burmeister, Syst. Uebers. Th. Bras., 3, p. 211, 1856—Guiana south to the Amazon and Rio Negro; Sclater, Cat. Coll. Amer. Bds., p. 108, 1862—"Upper Amazon" and Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 181—Nauta, Peru; idem, l.c., 1867, p. 572—Mexiana Island, Brazil; Pelzeln, Orn. Bras., 3, p. 228, 1870—part, Borba, Rio Madeira (spec. examined); Sclater and Sp'rin, Proc. Zool. Soc. Lond., 1873, p. 264—Nauta, Yurimaguas, Santa Cruz, and Rio Huallaga, Peru; Salvin, Ibis, 1886, p. 503—British Guiana (crit.); Taczanowski, Orn. Pér., 3, p. 27, 1886—Peru (Balza-Puerto, Yurimaguas, Nauta, Santa Cruz, Ucayali); Sharpe, Cat. Bds. Brit. Mus., 12, p. 813, pl. 16, fig. 4, 1888—Guiana (Cayenne, Camacusa), Brazil (Mexiana Island), and Peru (Chamicuro, Pebas); Berlepsch, Journ. Orn., 37, p. 299, 1889—Sarayacu, lower Ucayali, Peru; Chapman and Riker, Auk, 7, p. 268, 1890—Santarém, Brazil; Goodfellow, Ibis, 1901, p. 473—near the mouth of the Rio Coca, Napo, Ecuador; Ihering, Rev. Mus. Paul., 6, p. 433, 1905—Rio Juruá, Brazil; Ihering, Cat. Faun. Braz., 1, p. 392, 1907—Rio Juruá (range in part, excl. of Pirajú, Paraguay); Hagmann, Zool. Jahrb. (Syst.), 26, p. 29, 1907—Mexiana; Snethlage, Journ. Orn., 55, p. 297, 1907—Mexiana, Marajó, and Monte Alegre; idem, l.c., 56, pp. 11, 500, 524, 1908—Bom Lugar (Rio Purús), Goyana (Rio Tapajóz), and Arumatheua (Rio Tocantins), Brazil; Berlepsch, Nov. Zool., 15, p. 122, 1908—Cayenne, French Guiana; Penard, Vog. Guyana, 2, p. 405, 1910—Surinam; Snethlage, Journ. Orn., 61, p. 522, 1913—Lower Amazonia; idem, Bol. Mus. Goeldi, 8, p. 435, 1914—Rio Tocantins (Arumatheua), Rio Xingú (Forte Ambé), Rio Tapajóz (Goyana), Rio Jamauchim (Santa Helena), Rio Purús (Bom Lugar), Marajó (Rio Arary, Pindobal, Pacoval), Mexiana, Maracá, Arumanduba, Monte Alegre, Rio Maecurú, Monte Alegre, and Rio Jamundá (Faro), Brazil; Beebe, Trop. Wild Life, 1, p. 136, 1917—Bartica; Chapman, Bull. Amer. Mus. N. H., 36, p. 573, 1917—La Morelia, Caquetá, Colombia; idem, l.c., 55, p. 629, 1926—eastern Ecuador.

*Paroaria nigrigenis* (not *Nemosia nigro-genis* Lafresnaye) Salvin, Ibis, 1885, p. 215—Camacusa, British Guiana.

*Paroaria gularis gularis* Hellmayr, Nov. Zool., 14, p. 10, 1907—Itaitúba, Rio Tapajóz; idem, l.c., 17, p. 281, 1910—Borba, Rio Madeira; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 119, 128, 1912—Mexiana and Marajó (Cachoeira); idem, Field Mus. Nat. Hist., Zool. Ser., 12, p. 304, 1929—Goyáz (Santo Antonio, Bõa Vista, and Philadelphia) and Pará (Rio Tocantins; Conceição do Araguaia, Rio Araguaia).

*Range*.—French, Dutch, and British Guiana; northern Brazil, from the Rio Tocantins, Marajó, Mexiana, and Maracá Island westwards, south to the lower Tocantins (Santo Antonio, Bõa Vista;

Philadelphia), lower Araguaya (Conceição do Araguaya, about 8° lat. south), lower Rio Madeira (Borba), the Rio Purús, and Rio Juruá; northeastern Peru north through eastern Ecuador to south-eastern Colombia (La Morelia, Rio Caquetá).<sup>1</sup>

9: British Guiana (Mazaruni River, 2); Brazil (Serra da Lua, Amazonas, 1; Santo Antonio, Goyáz, 1; Philadelphia, Goyáz, 1); Peru (Lagunas, 3; Yurimaguas, 1).

**\**Paroaria gularis cervicalis* Sclater.<sup>2</sup> SOUTHERN BLACK-THROATED CARDINAL.**

*Paroaria cervicalis* Sclater, Cat. Coll. Amer. Bds., p. 108, 1862—Bolivia (type in coll. of P. L. Sclater, now in British Museum, examined); Sharpe, Cat. Bds. Brit. Mus., 12, p. 814, pl. 16, fig. 6, 1888—Matto Grosso and Bolivia.

*Tachyphonus gularis* (not *Tanagra gularis* Linnaeus) d'Orbigny, Voyage Amér. Mérid., Ois., p. 279, 1839—Chiquitos and Mojos, Bolivia (spec. in Paris Museum examined).

*Paroaria gularis* Pelzeln, Orn. Bras., 3, p. 228, 1878—part, [Villa Bella de] Matto Grosso, Matto Grosso (spec. in Vienna Museum examined); Ihering, Cat. Faun. Braz., 1, p. 392, 1907—part, Matto Grosso.

*Paroaria gularis cervicalis* Allen, Bull. Amer. Mus. N. H., 2, p. 84, 1889—falls of the Rio Madeira and Reyes, Bolivia; Hellmayr, Nov. Zool., 14, p. 10

<sup>1</sup> Birds from Lower Amazonia west to Borba (Rio Madeira) agree with Guianan specimens. Adults from Peru and another from the Rio Napo, Ecuador, are on average slightly larger (wing up to 87), and have the blackish orbital space less conspicuous, thus approaching the southern race *P. g. cervicalis*. An adult female collected by G. Holt at Conceição do Araguaya (under about 8° latitude south) is wholly typical of *gularis*, and shows not the least intergradation to the very distinct *P. baeri* found on the upper stretches of the same river.

*Additional material examined.*—French Guiana: Cayenne, 7.—Brazil: Mexiana Island, 1; Cachoeira, Marajó, 2; Boa Vista, Marajó, 1; Espirito Santo, Marajó, 1; Rio Tocantins, 1; Itaituba, Rio Tapajóz, 2; Borba, Rio Madeira, 4; Conceição do Araguaya, Pará, 1.—Peru: Iquitos, 1; Pebas, 2; Rio Tocache, 2.—Ecuador: mouth of the Coca, Rio Napo, 1.

<sup>2</sup> *Paroaria gularis cervicalis* Sclater: Similar to *P. g. gularis*, but slightly larger, and without any blackish color around the eye. Wing, 85–87, (female) 84; tail, 75–79; bill, 14–15.

A specimen from Mojos, Bolivia, agrees with three adults from Villa Bella de Matto Grosso in having no trace whatever of black in the orbital region. In all four individuals the maxilla is wholly black, the lower mandible orange yellow with the tip black, and the legs (tarsus and toes) are blackish. The type, which we have recently re-examined in the British Museum, has the legs neither blackish as in Matto Grosso birds, nor yellow as in newly collected specimens of *P. capitata*, but of a pale horn brown, exactly as in certain old skins of the latter species. The lower mandible is colored as in Matto Grosso birds, viz., bright yellow with dusky tip. The maxilla, however, is intermediate between *cervicalis* and *capitata*, being yellow along the culminal edge with the lateral portion dark brown streaked with brownish yellow. Proportions of bill, wings, and tail are more like those of Matto Grosso birds, which speaks for the type being an intergrade to *P. capitata*. The southern race of the Black-throated Cardinal is so little known that more adequate material is urgently needed to establish the limits of its variation.

*Material examined.*—Bolivia: Mojos, 1; unspecified, 1 (the type).—Brazil, Matto Grosso: Villa Bella de Matto Grosso, 3.

(in text), 1907—eastern Bolivia and Matto Grosso (crit.); idem, l.c., 30, p. 229, 1923—Mojos, Bolivia (crit., range); Naumburg, Bull. Amer. Mus. N. H., 60, p. 361, 1930 (range).

*Range*.—Eastern Bolivia (falls of the Rio Madeira; Reyes; Mojos; Chiquitos) and the adjacent districts of western Matto Grosso (Villa Bella de Matto Grosso, Rio Guaporé).<sup>1</sup>

1: Bolivia (Buena Vista, Santa Cruz, 1).

***Paroaria baeri* Hellmayr.<sup>2</sup> BAER'S CARDINAL.**

*Paroaria baeri* Hellmayr, Bull. Brit. Orn. Cl., 19, p. 43, Jan., 1907 Rio Araguaya [near Leopoldina], Goyáz, Brazil (type in Tring Collection, now in the American Museum of Natural History, New York); idem, Nov. Zool., 15, p. 36, 1908 Rio Araguaya.

*Range*.—Central Brazil, in State of Goyáz (near Leopoldina, upper Rio Araguaya).

**\**Paroaria capitata* (Lafresnaye and d'Orbigny).<sup>3</sup> YELLOW-BILLED CARDINAL.**

<sup>1</sup> Bertoni (Faun. Parag., p. 64, 1914) includes *P. gularis* among the birds of Paraguay, evidently without having seen a specimen.

<sup>2</sup> *Paroaria baeri* Hellmayr: Nearly allied to *P. g. gularis*, but differs by having the red of the forehead and throat much deeper, carmine-red instead of "poppy-red" (Ridgway, Nomencl. Colors, 1886, pl. 7, fig. 9); the feathers of the forehead and anterior crown merely tipped with red, the bases being black (while in *P. g. gularis* all the top of the head from forehead to nape is uniform clear poppy-red without any black at the bases); the lores and sides of the head metallic bluish-black instead of poppy-red; the sides of the neck bluish-black like the back, not white; the back and wings much more glossy black, this color extending up to the occiput; the sides of the breast and abdomen marked with subterminal blackish cross-bars, etc. Another striking difference consists in the shape of the feathers on the foreneck. In *P. g. gularis*, these are elongated, somewhat pointed, and black, with the concealed bases dull reddish; in *P. baeri* they are much shorter, rounder, and dull black, each feather with a minute glossy spot of carmine-red at the extreme tip. The bill, in *P. baeri*, is decidedly stronger and stouter, and the lower mandible, excepting the blackish tip, is dull reddish instead of bright orange yellow. The feet are blackish as in *P. g. gularis*. Wing, 80-83; tail, 80; bill, 14.

*Material examined*.—Brazil: Goyáz, near Leopoldina, Rio Araguaya, 4.

<sup>3</sup> *Paroaria capitata* (Lafresnaye and d'Orbigny) closely resembles *P. gularis cervicalis*, but is slightly smaller (wing, 77-82) with decidedly smaller, wholly orange yellow bill and much shorter tarsi, with dull orange yellow legs, and a very nearly complete white nuchal collar.

This bird may ultimately prove to be a southern representative of the *gularis* group, such relationship being suggested by the intermediate bill-coloration of the type specimen of *P. g. cervicalis*, as we have explained in detail under that heading. The distribution of *P. capitata* is more southerly than that of its ally. While *P. g. cervicalis* inhabits the river valleys of eastern Bolivia and just crosses into Matto Grosso near the sources of the Rio Guaporé (Villa Bella de Matto Grosso) in the Amazonian drainage, *P. capitata* is peculiar to the water system of the Paraguay River, extending north to its headwaters, the São Lourenço and Cuyabá rivers. Until more is known about the variation and local range of *P. g. cervicalis*, it seems, however, advisable to separate the two birds specifically.

*Additional material examined*.—Brazil: Matto Grosso, Villa Maria [= São Luiz de Cáceres], 3; Rio Cuyabá, near Cuyabá, 3; Cambará, 1.—Paraguay: Puerto



*Tachyphonus capitatus* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 29, 1837—Corrientes, Argentina (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 278, pl. 19, fig. 2, 1839—banks of the Rio Paraná, in the provinces of Santa Fé, Entre Ríos, and Corrientes; Hartlaub, Syst. Ind. Azara, p. 9, 1847—Paraguay and La Plata River (ex "Capitá" Azara, No. 137).

*Paroaria capitatus* Bonaparte, Consp. Gen. Av., 1, (2), p. 472, 1850—"Brazil" and Paraguay.

*Paroaria capitata* Burmeister, Syst. Uebers. Th. Bras., 3, p. 212, 1856—southern Brazil, on the confines of Paraguay and Bolivia; idem, Journ. Orn., 8, p. 254, 1860—Paraná, on the bank of the river; idem, Reise La Plata St., 2, p. 482, 1861—near Paraná, Entre Ríos; Sclater, Cat. Coll. Amer. Bds., p. 108, 1862—Paraguay; Pelzeln, Orn. Bras., 3, p. 228, 1870—Rio Cuyabá, Villa Maria, and Caiçara, Matto Grosso; Doering, Period. Zool. Arg., 1, p. 254, 1874—Rio Guayquiraro, Corrientes; White, Proc. Zool. Soc. Lond., 1882, p. 598—"Argentina" (cage-bird); Berlepsch, Journ. Orn., 35, p. 9, 1887—Lambaré, Rio Paraguay, Paraguay; Sharpe, Cat. Bds. Brit. Mus., 12, p. 812, pl. 16, fig. 5, 1888—Cuyabá and Paraguay; Sclater and Hudson, Arg. Orn., 1, p. 48, 1888—near Paraná; Allen, Bull. Amer. Mus. N. H., 3, p. 369, 1891—Corumbá and Uacuryzal, Rio Paraguay, Matto Grosso; Kerr, Ibis, 1892, p. 126—Fortín Donovan, lower Pilcomayo; idem, Ibis, 1901, p. 224—Villa Concepción and Gran Chaco, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 392, 1907—Matto Grosso; Hartert and Venturi, Nov. Zool., 16, p. 182, pl. 3, fig. 10 (egg), 1909—Ocampo, Mocoví, and San Lorenzo, Santa Fé (nest and eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 400, 1910—Mocoví, Chaco; Grant, Ibis, 1911, p. 97—Chaco (Riacho Ancho), Paraguay (Puerto Pinasco and Sapatero Cué, Rio Paraguay), Corrientes (Esquina), and Santa Fé (Rosario); Bertoni, Faun. Parag., p. 64, 1914—Paraguay; Ménégau, Rev. Franç. d'Orn., 5, p. 86, 1917—São Luiz de Cáceres and Cavallaria (Corumbá), Matto Grosso; Hellmayr, Nov. Zool., 30, p. 228, 1923—Corrientes (range); Serié and Smyth, El Hornero, 3, p. 54, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 174, 1923—Corrientes; Naumburg, Bull. Amer. Mus. N. H., 60, p. 359, 1930—Paraguay (Puerto Pinasco), and Matto Grosso (Agua Blanca de Corumbá, Descalvados, Rio São Lourenço, Fazenda do São João) (nest and eggs descr.); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 397, 1934—Descalvados, Matto Grosso.

*Paroaria cervicalis* (not of Sclater) Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 6, 1895—Puerto Pagani, Rio Apa, Paraguay (spec. in Turin Museum examined).

*Coccopsis capitata* Wetmore, Bull. U. S. Nat. Mus., 133, p. 400, 1926—Chaco (Las Palmas), Formosa (Riacho Pilaga and Formosa), and Paraguay (Puerto Pinasco); Friedmann, Bull. Mus. Comp. Zool., 68, p. 231, 1927—Deniz Island, Rio Paraná, Santa Fé; Smyth, El Hornero, 4, p. 145, 1928 (eggs descr.); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 261, 1930—Formosa (San José, Tapikiolé).

Pagani, Rio Apa, 1; Villa Concepción, 4; Bernalcué, near Asunción, 2.—Argentina: Corrientes, 5; Rio Guayquiraro, Corrientes, 1; Ocampo, Santa Fé, 3; Mocoví, Santa Fé, 4; San José, Formosa, 1; Tapikiolé, Formosa, 1.

*Range*.—Banks of the Rio Paraná and tributaries from Santa Fé (Rosario) and Corrientes north through Paraguay to its headwaters, the Paraguay, São Lourenço and Cuyabá rivers, in western Matto Grosso.

6: Brazil (Descalvados, Matto Grosso, 2; Conceição, Matto Grosso, 2); Argentina (Mocoví, Chaco, 1; Ocampo, Santa Fé, 1).

### Genus RICHMONDENA Mathews and Iredale

*Cardinalis* (not Jarocki, 1821) Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 111, pub. June 14, 1838—type, by subs. desig. (Gray, List Genera Bds., p. 43, 1840), *Cardinalis virginianus* Bonaparte = *Loxia cardinalis* Linnaeus.

*Richmondena* Mathews and Iredale, Austr. Av. Rec., 3, No. 6, p. 145, June 25, 1918—type, by orig. desig., *Loxia cardinalis* Linnaeus.

### \**Richmondena cardinalis cardinalis* (Linnaeus). EASTERN CARDINAL.

*Loxia cardinalis* Linnaeus, Syst. Nat., 10th ed., 1, p. 172, 1758—based mainly on "The Red-Bird" Catesby, Nat. Hist. Carolina, 1, p. 38, pl. 38; South Carolina accepted as type locality.

*Loxia sanguinirostris* Linnaeus, Syst. Nat., 10th ed., 1, p. 173, 1758—"in Asia," errore; Odhelius, Amoen. Acad., 4, p. 243, 1759 (full descr. of young male); cf. W. Selater, Bull. Brit. Orn. Cl., 46, p. 19, 1925 (crit.).

*Loxia rubra* Scopoli, Ann. I. Hist. Nat., p. 139, 1769—new name for *Loxia cardinalis* Linnaeus.

*Cardinalis virginianus* Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 111, pub. June 14, 1838—new name for *Loxia cardinalis* Linnaeus.

*Cardinalis cardinalis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 161, 1888 (excl. of Texas and Florida; monog.).

*Cardinalis cardinalis cardinalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 635, 1901 (monog., full bibliog.).

*Cardinalis bermudianus* Bangs and Bradlee, Auk, 18, p. 256, June 30, 1901—Hamilton, Bermuda (type in Museum of Comparative Zoology, Cambridge, Mass.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 674, 1901 (crit.); Bangs, Bull. Mus. Comp. Zool., 70, p. 373, 1930 (crit.).

*Cardinalis cardinalis somersii* Verrill, Amer. Journ. Sci., (4), 12, No. 67, p. 65, "July, 1901" [= June 30, 1901]—Bermuda (type in coll. of A. H. Verrill).

*Range*.—North America, in the upper and lower Austral zones east of the Great Plains from southeastern South Dakota, southern Iowa, northern Indiana, northern Ohio, southern Ontario, Pennsylvania, and the southern Hudson Valley south to the northern parts of the Gulf states and the Bermudas (introduced?); casual in Colorado, Minnesota, Wisconsin, Michigan, New Brunswick, Massachusetts, and Connecticut. Introduced in southern California (race undetermined).

46: Wisconsin (Viroqua, 1); Illinois (Olive Branch, 1; Grand Tower, 1; Henry, 4; Mound City, 3; Farina, 1; Grand Chain, 5; Lewistown, 6); Indiana (Dune Park, 1; Bluffton, 1; Kouts, 2; Salamonina, Jay County, 1); Kansas (Fort Riley, 2); Tennessee (Pomona Road, 1; Medina, 2); North Carolina (Raleigh, 8); Virginia (Alexandria County, 1); Arkansas (Winslow, 2; Stuttgart, 1); Mississippi (Holly Springs, 2).

**\**Richmondena cardinalis floridana* (Ridgway). FLORIDA**  
CARDINAL.

*Cardinalis cardinalis floridanus* Ridgway, Man. N. Amer. Bds., 2nd ed., p. 606, 1896—Enterprise, Florida (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 641, 1901—Florida (monog.).

*Range.*— Peninsular Florida.

70: Florida (Nassau County, 2; Starke, 1; Mary Esther, 17; Town Point, Santa Rosa County, 8; Jacksonville, 1; Enterprise, 3; Wilson, 4; Eau Gallie, 1; Kissimmee River, 1; West Jupiter, 11; Lake Worth, 1; Palm Beach, 1; Merritt's Island, 1; Puntarasa, 7; Miami Beach, 5; Key West, 2; unspecified, 4).

**\**Richmondena cardinalis magnirostris* (Bangs).<sup>1</sup> LOUISIANA**  
CARDINAL.

*Cardinalis cardinalis magnirostris* Bangs, Proc. New Engl. Zool. Cl., 4, p. 6, March 24, 1903—West Baton Rouge Parish, Louisiana (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 374, 1930).

*Cardinalis cardinalis* subsp. Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 641 (footnote 2), 1901—New Orleans, Madisonville, and Covington, Louisiana (crit.).

*Range.*— Eastern Texas and southern Louisiana.

25: Louisiana (Chef Menteur, 7; Buras, 11; New Orleans, 1); Mississippi (Vicksburg, 6).

**\**Richmondena cardinalis canicauda* (Chapman). GRAY-TAILED**  
CARDINAL.

*Cardinalis cardinalis canicaudus* Chapman, Bull. Amer. Mus. N. H., 3, No. 2, p. 324, Aug. 27, 1891—thirty miles west of Corpus Christi, Texas (type in the American Museum of Natural History, New York); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 639, 1901—Texas south to Puebla

<sup>1</sup> *Richmondena cardinalis magnirostris* (Bangs): Most like *R. c. floridana*, but with larger, heavier bill and stronger legs; wing slightly longer; tail shorter; coloration of males on head and under parts not quite so dark, though more intense than in *R. c. cardinalis*; female with middle of belly paler, more whitish. Wing, 89–94, (female) 87–90; tail, 91–102, (female) 90–96; bill, 19–19.6, (female) 18–19; depth of bill at base, 15.4–16.8, (female) 15.2–16.

(monog.); Phillips, Auk, 28, p. 89, 1911—Tamaulipas (San Fernando, Matamoros, Alta Mira, Rio Martinez, Santa Leonor, Rio Cruz; crit.); Griscom and Crosby, Auk, 43, p. 26, 1926—Brownsville, Texas.

*Range*.—Central and western Texas south through eastern Mexico to Puebla and Michoacan.<sup>1</sup>

74: Texas (Fort Worth, 16; Kendall County, 1; Fort Clark, 1; Port O'Connor, 1; Corpus Christi, 32; Port Lavaca, 3; Ingram, 3; Waring, 4; Cameron County, 1; Brownsville, 1); Mexico (Sabinas, Coahuila, 4; Valles, San Luis Potosí, 1; Tamaulipas, 1; Tampico, Tamaulipas, 5).

**\**Richmondena cardinalis coccinea* (Ridgway). JALAPA CARDINAL.**

*Cardinalis virginianus* var. *coccineus* Ridgway, Amer. Journ. Sci., (3), 5, No. 25, p. 39, Jan., 1873—part, Atlantic coast of Mexico (type, from Mexico, in U. S. National Museum);<sup>2</sup> idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 642, 1901—gulf slope of southeastern Mexico, excl. of Alta Mira, Tamaulipas (monog., full bibliog.).

*Cardinalis cardinalis coccineus* Chapman, Bull. Amer. Mus. N. H., 10, p. 28, 1898—Jalapa, Vera Cruz.

[*Cardinalis cardinalis*] subsp. *a* *Cardinalis coccineus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 163, 1888—part, spec. a, b, Jalapa.

*Cardinalis virginianus* (not of Bonaparte) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 340, 1884—part, Mexico (Vera Cruz, Córdoba, Jalapa, Playa Vicente).

*Range*.—Caribbean slope of southeastern Mexico, in states of Vera Cruz (Mirador, Córdoba, Orizaba, Jalapa, Otatitlan, etc.) and Oaxaca (Tuxtepec, Playa Vicente).<sup>3</sup>

1: Mexico (Achtal, Vera Cruz, 1).

***Richmondena cardinalis littoralis* (Nelson).<sup>4</sup> NELSON'S CARDINAL.**

*Cardinalis cardinalis littoralis* Nelson, Auk, 14, p. 64, 1897—Coatzacoalcos, coast of southern Vera Cruz, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 643, 1901—coast of southern Vera Cruz (Coatzacoalcos, Minatitlan).

*Range*.—Hot coastal plains of extreme southeastern Vera Cruz (Coatzacoalcos, Minatitlan) and probably of the adjacent parts of Tabasco.

<sup>1</sup> Here belongs probably *Cardinalis herrerae* Alvarado (Bol. Direc. Estud. Biol. Mexico, 1, No. 3, p. 284, col. pl., 1916), based on a color-variety with yellow crest and pectoral spots from Santa Rosa, San Luis Potosí.

<sup>2</sup> Ridgway (Bull. U. S. Nat. Mus., 50, Part 1, p. 643, footnote 1, 1901) gives good reasons for considering Playa Vicente, Oaxaca, to be the type locality.

<sup>3</sup> Birds from southern Tamaulipas (Alta Mira) assigned by Ridgway to the present form were shown by Phillips (Auk, 28, p. 89, 1911) to be referable to *R. c. canicauda*.

<sup>4</sup> Characters and range of this race remain to be determined by additional material.

**\**Richmondena cardinalis yucatanica* (Ridgway). YUCATAN  
CARDINAL.**

*Cardinalis cardinalis yucatanicus* Ridgway, Man. N. Amer. Bds., p. 443, 1887—Yucatan (type, from Mérida, in U. S. National Museum); Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 209—Tekanto, Ticul, and Progreso, Yucatan; Chapman, Bull. Amer. Mus. N. H., 8, p. 279, 1896—Chichen-Itzá, Yucatan; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 644, 1901—part, Yucatan Peninsula (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 142, 1906—Chichen-Itzá, Yucatan; Griscom, Amer. Mus. Nov., 235, p. 17, 1926—eastern Yucatan (crit.).

*Cardinalis virginianus* (not of Bonaparte) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 201, 1868—Mérida, Yucatan; Boucard, Proc. Zool. Soc. Lond., 1883, p. 444—Chable, Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 340, 1884—part, Mérida and Chable, Yucatan.

[*Cardinalis cardinalis*] subsp. *a* *Cardinalis coccineus* (not of Ridgway) Sharpe, Cat. Bds. Brit. Mus., 12, p. 163, 1888—part, spec. d-g, Chable and Mérida, Yucatan.

*Range*.—Peninsula of Yucatan.

6: Mexico (San Ignacio, 1; Mérida, 1; Buctzotz, 1; San Felipe, 2; "Yucatan," 1).

***Richmondena cardinalis flammigera* (Peters).<sup>1</sup> BELIZE  
CARDINAL.**

*Cardinalis cardinalis flammiger* Peters, Auk, 30, p. 380, July, 1913—Xcopen, Quintana Roo, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.); Griscom, Amer. Mus. Nov., 235, p. 17, 1926—Corosal, British Honduras (crit.).

*Cardinalis virginianus* (not of Bonaparte) Salvin, Ibis, 1866, p. 193—Belize, British Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 340, 1884—parts, British Honduras (Belize, Corosal).

[*Cardinalis cardinalis*] subsp. *a* *Cardinalis coccineus* (not of Ridgway) Sharpe, Cat. Bds. Brit. Mus., 12, p. 163, 1888—part, spec. v-z, Corosal and Belize, British Honduras.

*Range*.—Southern Quintana Roo (Xcopen) and British Honduras (Corosal, Belize).

**\**Richmondena cardinalis saturata* (Ridgway).<sup>2</sup> COZUMEL  
CARDINAL.**

<sup>1</sup> *Richmondena cardinalis flammigera* (Peters): Similar to *R. c. yucatanica*, but slightly larger with longer, slenderer bill; color of adult male between geranium red and scarlet vermillion instead of between scarlet and scarlet vermillion; female differing by its bistre brown instead of raw umber back. Wing, 85½, (female) 79–80; tail, 106, (female) 97–103; bill, 18½, (female) 17–18.

One specimen (male) from Corosal examined.

<sup>2</sup> *Richmondena cardinalis saturata* (Ridgway) appears to be separable from *R. c. yucatanica* by slightly larger size with heavier feet and darker coloration of the upper parts in both sexes.

*Cardinalis saturatus* Ridgway, Proc. Biol. Soc. Wash., 3, p. 24, 1885—Cozumel Island, Yucatan (type in U. S. National Museum).

*Cardinalis cardinalis saturatus* Ridgway, Proc. U. S. Nat. Mus., 8, p. 568, 1885—Cozumel (full descr.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 645, 1901—Cozumel (monog.); Griscom, Amer. Mus. Nov., 236, p. 12, 1926—Cozumel (crit.).

[*Cardinalis cardinalis*] subsp. *a* *Cardinalis coccineus* (not of Ridgway) Sharpe, Cat. Bds. Brit. Mus., 12, p. 163, 1888—part, spec. h-p, Cozumel.

*Cardinalis coccineus* Salvin, Ibis, 1888, p. 260—part, Cozumel (crit.).

*Range*.—Cozumel Island, Yucatan.<sup>1</sup>

5: Mexico (Cozumel Island, Yucatan, 5).

**\**Richmondena cardinalis superba* (Ridgway). ARIZONA CARDINAL.**

*Cardinalis cardinalis superbus* Ridgway, Auk, 2, p. 344, Oct., 1885—Fuller's Ranch, a few miles east of Camp Lowell, Arizona (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 645, 1901—southern Arizona and contiguous parts of Sonora (monog., full bibliog.).

*Richmondena cardinalis superba* van Rossem, Trans. San Diego Soc. N. H., 6, p. 291, 1931—Sonora (Saric, Pesqueira, fifteen miles southwest of Nogales, El Alamo, and twelve miles west of Magdalena).

[*Cardinalis cardinalis*]  $\beta$  *C. superbus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 166, 1888—part, spec. a, b, Camp Lowell, Arizona.

*Range*.—Southern Arizona, southwestern New Mexico, and the adjacent parts of northwestern Sonora (south to Pesqueira).

8: Arizona (Phoenix, 2; San Pedro Mountain, Pinal County, 1; Tucson, 3; Paradise, 1; Calabasas, 1).

**\**Richmondena cardinalis ignea* (Baird). SAN LUCAS CARDINAL.**

*Cardinalis igneus* Baird, Proc. Acad. Nat. Sci. Phila., 1859, p. 305, pub. Jan. 12, 1860—Cape San Lucas, Lower California (type in U. S. National Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 341, 1884—part, Cape San Lucas.

[*Cardinalis cardinalis*] subsp.  $\beta$  *C. igneus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 164, 1888—part, spec. b-f, San José and Cape San Lucas, Lower California.

*Cardinalis cardinalis igneus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 647, 1901—Cape San Lucas district (monog., full bibliog.); Brewster, Bull. Mus. Comp. Zool., 41, p. 155, 1902—Cape district of Lower California (monog., habits, nest, and eggs); Townsend, Bull. Amer. Mus. N. H.,

<sup>1</sup> In the absence of material I am unable to decide whether specimens from the islands on the northern and eastern coast of Yucatan (Meco, Holbox, Mujeres) are referable to *R. c. saturata* or to *R. c. yucatanica*. Cf. Salvin, Ibis, 1888, p. 260, and Sharpe, Cat. Bds. Brit. Mus., 12, p. 163, 1888 (spec. q-u). A casual inspection of the material in the British Museum shows these birds to be referable to *saturata*.

48, p. 21, 1923—Cape region (to Concepción Bay) and Carmen Island; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 309, 1926—Cape San Lucas.

*Richmondena cardinalis ignea* Grinnell, Univ. Calif. Pub. Zool., 32, p. 184, 1928—Cape district north to San Ignacio.

*Range.*—Arid Tropical and lower Austral zones of the Cape district of Lower California, north to about lat. 27°.

8: Lower California (Loreto, 1; Comondú, 1; Todos Santos, 2; Cape San Lucas, 1; unspecified, 3).

***Richmondena cardinalis townsendi* van Rossem.<sup>1</sup> TIBURÓN CARDINAL.**

*Richmondena cardinalis townsendi* van Rossem, Trans. San Diego Soc. N. H., 7, p. 142, July 28, 1932—Tiburón Island, Sonora, Mexico (type in California Institute of Technology, Pasadena).

*Cardinalis cardinalis affinis* (not of Nelson) Townsend, Bull. Amer. Mus. N. H., 48, p. 21, 1923—Tiburón Island.

*Range.*—Tiburón Island, Gulf of California, on the coast of Sonora, northwestern Mexico.

***Richmondena cardinalis affinis* (Nelson).<sup>2</sup> ALAMOS CARDINAL.**

*Cardinalis cardinalis affinis* Nelson, Proc. Biol. Soc. Wash., 13, p. 28, May 29, 1899—Alamos, Sonora (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 648, 1901—southern Sonora, northern Sinaloa, and adjacent Chihuahua (monog.).

*Cardinalis virginianus igneus* (not of Baird) Belding, Proc. U. S. Nat. Mus., 6, p. 343, 1893—Guaymas, Sonora; Allen, Bull. Amer. Mus. N. H., 5, p. 39, 1893—Opoto, Sonora.

*Cardinalis igneus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 341, 1884—part, Guaymas, Sonora.

*Richmondena cardinalis affinis* van Rossem, Trans. San Diego Soc. N. H., 6, p. 291, 1931—Sonora (Tecoripa, San Javier, Obregón, Tésia, Chinobampo, Guirocoba, Guaymas, Tóbari Bay, and Kino Bay); idem, Bull. Mus. Comp. Zool., 77, p. 478, 1934—Sonora (Guaymas, Alamos, Oposura, Nacozari, Cumpas) and Chihuahua (La Trompa).

<sup>1</sup> *Richmondena cardinalis townsendi* van Rossem: "Similar to *R. c. affinis*, of the Alamos District of southern Sonora, but coloration of males somewhat lighter red, and with dorsal plumage paler and gray; coloration of females paler, duller and grayer buff. Similar also to *R. c. ignea*, of Lower California, but bill smaller and less tumid, and coloration of females grayer and slightly paler. Wing (adult female), 95; tail, 112; culmen from base, 17; depth at base, 14; tarsus, 25.3." (Van Rossem, l.c.)

<sup>2</sup> According to van Rossem (Trans. San Diego Soc. N. H., 7, pp. 142-143, 1932), there is no tangible distinction in the male sex between *R. c. superba*, *R. c. ignea*, and *R. c. affinis*. Females of the first-named and the last are, however, of richer, browner coloration, especially underneath, *affinis* being again slightly darker and of decidedly smaller size, while those of *R. c. ignea* are duller and paler, more buffy and less brownish in tone.

*Range*.—Eastern and southern Sonora and adjacent parts of southwestern Chihuahua (Batopilos, La Trompa, etc.).

**Richmondena cardinalis sinaloensis** (Nelson). MAZATLAN  
CARDINAL.

*Cardinalis cardinalis sinaloensis* Nelson, Proc. Biol. Soc. Wash., 13, p. 28, May 29, 1899—Culiacan, Sinaloa (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 648, 1901—Pacific coast of Sinaloa (monog., full bibliog.).

*Cardinalis virginianus* (not of Bonaparte) Finsch, Abhandl. Naturw. Ver. Bremen, 2, p. 339, 1870—Mazatlan, Sinaloa.

*Cardinalis virginianus* var. *igneus* (not of Baird) Lawrence, Mem. Bost. Soc. N. H., 2, p. 275, 1874—part, Mazatlan.

*Cardinalis igneus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 341, 1884—part, Mazatlan.

*Cardinalis cardinalis igneus* Lantz, Trans. Kans. Acad. Sci., 16, p. 223, 1899—Limoncito and Altata, Sinaloa.

[*Cardinalis cardinalis*]  $\beta$  *C. superbus* (not of Ridgway) Sharpe, Cat. Bds. Brit. Mus., 12, p. 166, 1888—part, spec. d, e, Presidio, near Mazatlan.

*Range*.—Pacific lowlands and foothills of southern Sinaloa, Mexico (Altata, Culiacan, Limoncito, Mazatlan, Presidio).<sup>1</sup>

**Richmondena cardinalis mariae** (Nelson). TRES MARIAS  
CARDINAL.

*Cardinalis cardinalis mariae* Nelson, Proc. Biol. Soc. Wash., 12, p. 10, Jan. 27, 1898—Maria Madre Island, Tres Marias group, Mexico (type in U. S. National Museum); idem, N. Amer. Fauna, 14, p. 52, 1899—Tres Marias (habits); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 649, 1901—Tres Marias (monog.); Bailey, Auk, 23, p. 391, 1906—Cleofa Island, Tres Marias; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 310, 1926—Maria Madre Island; idem, l.c., (4), 17, p. 46, 1927—Maria Madre.

*Cardinalis virginianus* (not of Bonaparte) Grayson, Proc. Bost. Soc. N. H., 14, p. 281, 1871—Tres Marias Islands.

*Cardinalis virginianus* var. *igneus* (not of Baird) Lawrence, Mem. Bost. Soc. N. H., 2, p. 275, 1874—part, Tres Marias.

*Cardinalis igneus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 341, 1884—part, Tres Marias.

[*Cardinalis cardinalis*] subsp.  $\beta$  *C. igneus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 166, 1888—part,  $\alpha$  Large-billed form, Tres Marias Islands.

*Range*.—Tres Marias Islands, off western Mexico.

**Richmondena cardinalis carnea** (Lesson).<sup>2</sup> COLIMA CARDINAL.

<sup>1</sup> The abnormally colored specimen from Michoacan (Patzcuaro) mentioned by Ridgway, unless it be a cage-bird, can hardly belong to *R. c. sinaloensis*.

<sup>2</sup> This form, though differing from its more northern allies by longer, stiffer crest and more convex bill, is clearly nothing but a race of the cardinal. In structure, it exhibits a certain tendency in the direction of *R. phoenicea*.



*Coccothraustes (Cardinalis) carneus* Lesson, Rev. Zool., 5, p. 210, 1842—Acapulco, Guerrero, Mexico, and "Realejo, Nicaragua" (type apparently in coll. of R. P. Lesson).<sup>1</sup>

*Cardinalis lessoni* Bonaparte, Consp. Gen. Av., 1, (2), p. 501, end of 1850—based on *Coccothraustes (Cardinalis) carneus* Lesson (Rev. Zool., 5, p. 210, 1842); "junior an varietas."

*Cardinalis carneus* Bonaparte, Consp. Gen. Av., 1, (2), p. 501, 1850—Acapulco and "Realejo" (ex Lesson); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 341, 1884—Acapulco (Guerrero), Sierra Nevada (Colima), and Huamelula (Oaxaca); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 650, 1901—Colima to Oaxaca (monog.); Griscom, Bull. Mus. Comp. Zool., 75, p. 415, 1934—Acapulco and Coyuca, Guerrero.

*Cardinalis virginianus* var. *carneus* Lawrence, Mem. Bost. Soc. N. H., 2, p. 275, 1874—Sierra Madre, Colima; idem, Bull. U. S. Nat. Mus., 4, p. 20, 1876—Huamelula, Oaxaca.

[*Cardinalis cardinalis*] subsp.  $\gamma$  *Cardinalis carneus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 166, 1888—Acapulco.

*Cardinalis virginianus* (not of Bonaparte) Salvin, Proc. Zool. Soc. Lond., 1883, p. 421—Acapulco, Guerrero.

*Range*.—Pacific coast district of southwestern Mexico, from Colima to Oaxaca (Huamelula).<sup>2</sup>

**\**Richmondena phoenicea* (Bonaparte).<sup>3</sup> VERMILION CARDINAL.**

*Cardinalis phoeniceus* (Gould MS.) Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 111, pub. June 14, 1838—"the country south of the Bay of Honduras" errore = Venezuela (type in coll. of Zoological Society of London, subsequently in Tring Museum; cf. Hartert, Nov. Zool., 26, p. 155, 1919); Taylor, Ibis, 1864, p. 83—Barcelona, Venezuela; Sclater and Salvin, Exot. Orn., p. 125, pl. 63, 1868—Carúpano, Venezuela; idem, Proc. Zool. Soc. Lond., 1868, pp. 167, 170—Carúpano, Venezuela; idem, l.c., 1869, p. 251—San Estéban, Carabobo (very rare); Finsch, l.c., 1870, p. 582—"Trinidad," errore; Bartlett, Monog. Weaver Bds. & Finches, Part 4, pl. 2, 1889—Colombia, Venezuela (Cumaná, Carúpano), and "Trinidad" (ex Finsch); Sharpe, Cat. Bds. Brit. Mus., 12, p. 166, 1888—Carúpano, Venezuela; Allen, Bull. Amer. Mus. N. H., 4, p. 52, 1892—Carúpano;

<sup>1</sup> At present possibly in the Museum of the Naval Medical School at Rochefort, France, where part of Lesson's private collection was deposited. Lesson's second locality, "Realejo, Nicaragua," can hardly be correct.

<sup>2</sup> *Material examined*.—Acapulco, Guerrero, 5; Tehuantepec, Oaxaca, 4.

<sup>3</sup> *Richmondena phoenicea* (Bonaparte) differs from the genotype so decidedly by much more convex bill, deeply incised maxillary tomium, and partly blackish upper mandible that it may well be kept as a distinct species.

With ample material from both Venezuela and Margarita Island, I am quite unable to maintain the supposed insular race (*robinsoni*), since not one of the characters used for its discrimination holds in series, as has already been intimated by Lowe and Cory. Neither can I recognize *C. p. granadensis* after comparing in the Carnegie Museum some twenty specimens from the type locality with a Venezuelan series.

Phelps, Auk, 14, pp. 359, 364, 1897—Cumaná, Venezuela; Lowe, Ibis, 1909, p. 323—Cariaco Peninsula, Venezuela.

*Cardinalis phaeniceus* Bonaparte, Consp. Gen. Av., 1, (2), p. 501, 1850—"Honduras" and Nova Granada.

*Cardinalis granadensis* Lafresnaye,<sup>1</sup> Rev. Zool., 10, p. 74, 1847—Rio Hacha, Colombia (descr. of male; type in coll. of T. Wilson, now in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899).

*Cardinalis phoenicurus granadensis* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899 (crit. on type).

*Cardinalis robinsoni* Richmond, Auk, 12, p. 370, 1895—Margarita Island (type in U. S. National Museum); Robinson and Richmond, Proc. U. S. Nat. Mus., 18, p. 676, 1896—Margarita Island; Clark, Auk, 19, p. 265, 1902—El Valle, Margarita.

*Cardinalis phoeniceus robinsoni* Lowe, Ibis, 1907, p. 567—Margarita Island (crit.); Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 248, 1909—Margarita Island (crit.).

*Carduelis* (sic) *phoeniceus* Hellmayr, Nov. Zool., 13, p. 58, 1906 (occurrence in Trinidad denied).

*Richmondena phoenicea* Todd and Carriker, Ann. Carnegie Mus., 14, p. 504, 1922—Rio Hacha, Colombia (crit.; habits).

*Range*.—Arid Tropical zone of the Caribbean coast of Venezuela and Colombia, from the Cariaco Peninsula and Margarita Island west to La Goajira (Rio Hacha).<sup>2</sup>

46: Venezuela (La Asunción, Margarita Island, 1; Porlamar, Margarita Island, 25; Margarita Island, 13; Maracaibo, 3; Rio Aurare, Zulia, 3); Colombia (Cartagena, Bolívar, 1).

### Genus PYRRHULOXIA Bonaparte

*Pyrrhuloxia* Bonaparte, Consp. Gen. Av., 1, (2), p. 500, end of 1850—type, by monotypy, *Cardinalis sinuatus* Bonaparte.

### \**Pyrrhuloxia sinuata sinuata* (Bonaparte). TEXAS PYRRHULOXIA.

*Cardinalis sinuatus* Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 111, pub. June 14, 1838—"western parts of Mexico" (type in coll. of Zoological Society of London, now in British Museum); idem, Consp. Gen. Av., 1, (2), p. 500, 1850—Zacatecas, Mexico;<sup>3</sup> van Rossem, Trans. San Diego Soc. N. H., 7, p. 355, 1934 (crit.).

<sup>1</sup>A synonym may be *Cardinalis columbianus* Bonaparte (Compt. Rend. Acad. Sci., 37, p. 924, Dec., 1853) from "Colombia." It is said to be smaller than the Cardinal of Virginia, with stronger bill and brighter red of the head, characters which are hardly sufficient to identify the bird the author had before him.

*Additional material examined*.—Venezuela: Cumaná, 20; San Estéban, 1.—Colombia: Rio Hacha, La Goajira, 22.

<sup>2</sup>The reported occurrence on the island of Trinidad is unreliable.

<sup>3</sup>Accepted by van Rossem (Trans. San Diego Soc. N. H., 7, p. 356 [in text], 1934) as type locality.

*Pyrrhuloxia sinuata beckhami* Ridgway, Auk, 4, p. 347, Oct., 1887—El Paso, western Texas (type in U. S. National Museum).

*Pyrrhuloxia sinuata texana* Ridgway, Auk, 14, p. 95, 1897 (nomen nudum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 628, 1901—northeastern Mexico and southern Texas (type from Corpus Christi, Texas, in U. S. National Museum); Phillips, Auk, 28, p. 89, 1911—Matamoros, Tamaulipas; Griscom and Crosby, Auk, 43, p. 26, 1926—Brownsville, Texas.

*Pyrrhuloxia sinuata sinuata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 625, 1901—part, New Mexico and western Texas (El Paso, etc.); van Rossem, Trans. San Diego Soc. N. H., 7, p. 357, 1934 (range); idem, Bull. Mus. Comp. Zool., 77, p. 478, 1934—Chihuahua, Mexico.

*Pyrrhuloxia sinuata* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 343, 1884—part, valley of the Rio Grande, Texas, Nuevo León, and Guanajuato; Sharpe, Cat. Bds. Brit. Mus., 12, p. 158, 1888—part, d-i, Texas (Eagle Pass, Rio Grande, Laredo, Ringgold Barracks, El Paso).

*Range*.—Lower Austral zone of southern and southeastern New Mexico, southeastwards across Texas and south through Mexico to Zacatecas, Guanajuato, and Puebla.<sup>1</sup>

25: New Mexico (Mimbres, 3); Texas (Crystal City, 2; Corpus Christi, 7); Mexico (Chihuahua, 4; Sabinas, Coahuila, 9).

**\**Pyrrhuloxia sinuata fulvescens* van Rossem.<sup>2</sup> ARIZONA  
PYRRHULOXIA.**

*Pyrrhuloxia sinuata fulvescens* van Rossem, Trans. San Diego Soc. N. H., 7, p. 356, May 31, 1934—Fort Lowell, Arizona (type in the D. R. Dickey Collection at the California Institute of Technology, Pasadena); idem, Bull. Mus. Comp. Zool., 77, p. 478, 1934—Sonora (Guaymas, Alamos, Oposura).

*Pyrrhuloxia sinuata* (not *Cardinalis sinuatus* Bonaparte) Lawrence, Mem. Bost. Soc. N. H., 2, p. 275, 1874—Mazatlan, Sinaloa; Belding, Proc. U. S. Nat. Mus., 6, p. 343, 1883—Guaymas, Sonora; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 343, 1884—part, Guaymas and Mazatlan; Sharpe, Cat. Bds. Brit. Mus., 12, p. 158, 1888—part, spec. b, c, Tucson, Arizona; Lantz, Trans. Kansas Acad. Sci., 16, p. 223, 1899—Florida, Sinaloa.

*Pyrrhuloxia sinuata sinuata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 625, 1901—part, northwestern Mexico and Arizona (monog., bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 364, 1905—Escuinapa, Sinaloa; idem, l.c., 22, p. 172, 1906—Rosario and Rancho Baillon, Durango (crit.); Van Rossem, Trans. San Diego Soc. N. H., 6, p. 292, 1931—Sonora

<sup>1</sup> As pointed out by van Rossem, the type of *C. sinuatus* is matched by specimens from Duval County, Texas, being a good average example of the form *P. s. texana*. The same author, furthermore, has shown birds from New Mexico (Las Cruces) and western Texas (El Paso) to be inseparable from a series taken in the lower Rio Grande Valley.

<sup>2</sup> *Pyrrhuloxia sinuata fulvescens* van Rossem: Similar to the nominate race, but distinguished by slightly smaller size, paler and more fulvous coloration, and virtual absence of black intermixture in the red of the face and crest of the males.

(Tecoripa, San Javier, Saric, Tésia, Chinobampo, Guaymas, Tobari Bay, Guirocoba, Sásabe).

*Pyrrhuloxia sinuata beckhami* (not of Ridgway) Allen, Bull. Amer. Mus. N. H., 5, p. 40, 1893—Granados, Sonora.

**Range.**—Lower Sonoran and arid Tropical zones of southern Arizona (from the vicinity of Tucson southwards) and western Mexico through Sonora, Sinaloa, and western Durango to Nayarit.

8: Arizona (Tucson, 5; Fort Lowell, 2; Fairbank, 1).

**\*Pyrrhuloxia sinuata peninsulae** Ridgway. SAN LUCAS  
PYRRHULOXIA.

*Pyrrhuloxia sinuata peninsulae* Ridgway, Auk, 14, p. 347, 1887—San José, Lower California (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 627, 1901—Cape San Lucas; Brewster, Bull. Mus. Comp. Zool., 41, p. 157, 1902—La Paz, Triunfo, Santiago, and San José del Rancho; Grinnell, Univ. Calif. Pub. Zool., 32, p. 184, 1928—Cape district, Lower California.

**Range.**—Arid Tropical zone of the Cape district of Lower California north locally to latitude 26° 40'.

4: Lower California (Todos Santos, 1; San José del Cabo, 1; Santa Anita, 2).

**Genus PHEUCTICUS** Reichenbach

*Pheucticus* Reichenbach, Av. Syst. Nat., pl. lxxviii, June 1, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 75, 1855), *Pitylus aureoventris* Lafresnaye and d'Orbigny.

**Pheucticus chrysopleplus dilutus** van Rossem.<sup>1</sup> VAN ROSSEM'S  
GROSBEAK.

*Pheucticus chrysopleplus dilutus* van Rossem, Bull. Mus. Comp. Zool., 77, p. 479, Dec., 1934—La Trompa, Chihuahua, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Pheucticus* [sic] *chrysopleplus* (not *Coccothraustes chrysopleplus* Vigors) van Rossem, Trans. San Diego Soc. N. H., 6, p. 293, 1931—Guirocoba, Sonora.

**Range.**—Southern Sonora (Guirocoba, Ysleta, Alamos, Hacienda de San Rafael), southwestern Chihuahua (La Trompa), and probably northern Sinaloa.

**\*Pheucticus chrysopleplus chrysopleplus** (Vigors).<sup>2</sup> VIGORS'S  
GROSBEAK.

<sup>1</sup> *Pheucticus chrysopleplus dilutus* van Rossem: Adult male similar to *P. c. chrysopleplus*, but with the concealed sub-basal portion of the rump feathers black as in *P. c. aurantiacus*, and back predominately black with yellow flammulations; female very much grayer and duller and more heavily streaked above, and paler yellow below with distinct streaks of dusky on the flanks. Size about the same.

**Material examined.**—Sonora: Alamos, 1; Ysleta, 4.

<sup>2</sup> Possible synonyms are *Guiraca magnirostris* Bonaparte (Proc. Zool. Soc. Lond., 5, "1837," p. 120, pub. June 14, 1838) and *Pheucticus bonapartei* Salvadori

*Coccothraustes chrysopheplus* Vigors, Proc. Comm. Sci. Corresp. Zool. Soc. Lond., 2, p. 4, pub. March, 1832—Mexico<sup>1</sup> (type in coll. of Zoological Society of London, now in British Museum; cf. van Rossem, Bull. Mus. Comp. Zool., 77, p. 479, 1934).

*Coccororus chrysopheplus* Bonaparte, Consp. Gen. Av., 1, (2), p. 504, 1850—Mexico (synon. in part).

*Pheucticus chrysopheplus* Finsch, Abhandl. Naturw. Ver. Bremen, 2, p. 339, 1870—Mazatlan, Sinaloa (plumages, crit.); Lawrence, Mem. Bost. Soc. N. H., 2, p. 274, 1874—Mazatlan, Sinaloa, and Rio de la Armeria, Colima (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 335, 1884—Mexico (Mazatlan, Rio de la Armeria); Sharpe, Cat. Bds. Brit. Mus., 12, p. 51, 1888—Mazatlan and Presidio; Lantz, Trans. Kansas Acad. Sci., 16, p. 223, 1899—Culiacan, Sinaloa; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 621, 1901—part, from Sinaloa (Mazatlan, Rosario, Culiacan) to Colima (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 364, 1905—Escuinapa and Juanna Gomez River, Sinaloa; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 45, 1927—Labrados, Sinaloa.

*Pheucticus chrysopheplus chrysopheplus* Griscom, Bull. Mus. Comp. Zool., 75, p. 411, 1934—Chilpancingo, Guerrero.

*Range*.—Southern Sinaloa (Culiacan, Mazatlan, Rosario, Escuinapa, Labrados) and Durango (Chacala) south through Nayarit (San Blas) and Jalisco (Las Palmas) to Colima (Armeria), and Guerrero (Chilpancingo).

1: Mexico (Escuinapa, Sinaloa, 1).

**\**Pheucticus chrysopheplus aurantiacus* Salvin and Godman.<sup>2</sup>**  
ORANGE-COLORED GROSBEAK.

*Pheucticus aurantiacus* Salvin and Godman, Ibis, (6), 3, p. 272, 1891—Volcan de Santa Maria, near Quezaltenango, Guatemala (type in Salvin and Godman Collection, now in British Museum, examined); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 623, 1901—Guatemala (Volcan de Santa Maria and Villanueva).

(Atti Accad. Sci. Torino, 4, p. 178, Dec., 1868). Bonaparte based his description upon a (female or immature) grosbeak in a collection of birds received by Leadbeater "from that portion of Brazil bordering on Peru," which contained, however, also some Mexican species. Salvadori renamed the species on the ground that Swainson (Classif. & Nat. Hist. Bds., 2, p. 111, fig. 159, July, 1837) had already employed the same specific name for another member of the genus *Coccororus* [= *Guiraca*]. I am unable to identify Bonaparte's species, the type of which—presumably in the Derby Collection at Liverpool—should be critically examined.

<sup>1</sup> San Blas, Nayarit, suggested as type locality by van Rossem (Bull. Mus. Comp. Zool., 77, p. 480, 1934).

<sup>2</sup> *Pheucticus chrysopheplus aurantiacus* Salvin and Godman: Similar to *P. c. chrysopheplus*, but head and under parts more orange, and adult male with sub-basal portion of rump feathers black.

*Additional material examined*.—Mexico: Chietla, Puebla, 1 (male); Pinabete, Chiapas, 2; Volcan de Tacana, Chiapas, 2.—Guatemala: Volcan de Santa Maria, 2; San Marcos, 1.

*Pheuticus* [sic] *aurantiacus* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 120, 1907—El Rancho, Guatemala.

*Pheuticus chrysopheplus aurantiacus* Griscom, Bull. Mus. Comp. Zool., 77, p. 347, 1932—Progreso, Guatemala.

*Pheuticus chrysopheplus* (not of Vigors) Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 141, 1886—Chietla, Puebla (spec. examined); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 621, 1901—part, Puebla.

**Range.**—Highlands of southeastern Mexico (Chietla, Puebla; Pinabete and Volcan de Tacana, Chiapas) and Guatemala (Volcan de Santa Maria, near Quezaltenango; Villanueva; Progreso and El Rancho, Motagua Valley).

10: Guatemala (Volcano Tajumulco, San Marcos, 9; El Rancho, Zacapa, 1).

**\**Pheuticus chrysopheplus tibialis* Lawrence.<sup>1</sup> IRAZÚ GROSBEAK.**

*Pheuticus tibialis* (Baird MS.) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 478, May, 1867—Cervántes, Costa Rica (type in U. S. National Museum); idem, l.c., 9, p. 102, 1868—Costa Rica (Tucurríqui, Cervántes, San José, Rancho Redondo); Salvadori, Atti Accad. Sci. Torino, 4, p. 177, pl. 5, 1868 [=1869]—Costa Rica (crit.); Frantzius, Journ. Orn., 17, p. 300, 1869—Turrialba, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 189—Veraguas (Calovévora, Chitrá, Boquete de Chitrá) and Chiriquí (Bugaba); Sclater and Salvin, l.c., 1870, p. 840—Costa Rica and Veraguas; Boucard, l.c., 1878, p. 58—Navárrro and Volcan de Irazú, Costa Rica; Nutting, Proc. U. S. Nat. Mus., 5, p. 495, 1882—Volcan de Irazú, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 335, 1884—Costa Rica and Panama; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Costa Rica (Rancho Redondo de San José, El Zarcéro de Alajuela, Cartago); Sharpe, Cat. Bds. Brit. Mus., 12, p. 53, 1888—Costa Rica (Irazú, Rancho Redondo, Valsa) and Panama (Calovévora, Veraguas); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 623, 1901—Costa Rica and Veraguas (monog.); Bangs, Proc. N. Engl. Zool. Cl., 3, p. 68, 1902—Boquete and Caribbean slope of Volcan de Chiriquí, Panama; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 281, 1910—Coliblanco, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 880, 1910—Costa Rica (Volcan de Turrialba, Coliblanco, Bonilla, La Estrella, Escazú, Tres Rios, Azahar, La Estrella de Cartago, Cariblanco de Sarapiquí, Volcan de Irazú, Azahar de Cartago; nest and eggs descr.); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 460, 1928—Boquete Trail, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 337, 1931—Guabo and Boquete Trail, Panama.

<sup>1</sup> This bird, although heretofore regarded as specifically different, is certainly nothing but a strongly marked race of *P. chrysopheplus*, as is indicated by certain individual variants. An adult male from the southwest slope of Irazú has well-developed white apical spots on the two lateral pairs of rectrices, and another specimen from the Volcan de Chiriquí shows white fringes to some of the greater wing-coverts.

Nine specimens from Costa Rica, five from Chiriquí, and one from Veraguas (Boquete de Chitrá) examined.

*Range*.—Upper Tropical and Subtropical zones of Costa Rica and western Panama (Chiriquí and Veraguas).

3: Costa Rica (Coliblanco, 1; La Isla, 1; Navarro, 1).

**\**Pheucticus chrysopheplus laubmanni* Hellmayr and Seilern.**  
LAUBMANN'S GROSBEAK.

*Pheucticus chrysopheplus laubmanni* Hellmayr and Seilern, Verh. Orn. Ges. Bay., 12, p. 160, Feb., 1915—Galipán, Cerro del Avila, Venezuela (type in Munich Museum).

*Pheucticus laubmanni* Todd and Carriker, Ann. Carnegie Mus., 14, p. 505, 1922—San Miguel, Santa Marta region, Colombia.

*Pheucticus chrysogaster* (not *Pitylus chrysogaster* Lesson) Sclater, Cat. Coll. Amer. Bds., p. 100, 1862—part, spec. b, Venezuela; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 840—part, Venezuela; Sharpe, Cat. Bds. Brit. Mus., 12, p. 53, 1888—part, spec. b, c, Caracas, Venezuela.

*Range*.—Subtropical zone of northern Colombia (San Miguel, Santa Marta region) and northern Venezuela (Caracas; Rio Maméra; Galipán, Cerro del Avila; Mount Turumiquire, Sucre).

2: Venezuela (Mount Turumiquire, 2).

**\**Pheucticus chrysopheplus chrysogaster* (Lesson).** GOLDEN-BELLIED GROSBEAK.

*Pitylus chrysogaster* Lesson, Cent. Zool., p. 204, pl. 67, May, 1832—"Chili," errore<sup>2</sup> (type in coll. of F. Canivet, present location unknown; descr. of male adult).

*Pitylus dorsigerus* Jardine and Selby, Illust. Orn., (n.s.), Part 8, pl. 44, 1842—"believed to come from some part of the western coast, towards the north of South America"—Ecuador (type in coll. of J. Carfrae; descr. of adult male).

*Coccothorus chrysogaster* Tschudi, Unters. Faun. Peru., Orn., p. 222, 1846—Peru.

<sup>1</sup> *Pheucticus chrysopheplus laubmanni* Hellmayr and Seilern: Nearest to *P. c. chrysogaster*, but easily distinguished by the adult male having the interscapular feathers bright yellow laterally edged with black, instead of solid black with semi-concealed yellow sub-basal spots; the scapulars narrowly margined on both webs with dull olive yellow, and the first to fifth primaries (from without) along the apical half of the outer web conspicuously edged with white; adult female differing by the last-named character and by brighter yellow upper parts, approaching in tone the color of the male sex. Wing, 102–106, (female) 98–103; tail, 81–86; bill, 20–22.

By the white margins to the outer primaries and the striped upper back this form recalls *P. c. chrysopheplus*, but is much smaller, more heavily streaked in the interscapular region, and has black sub-basal spots on the rump, not to mention several minor differences.

*Material examined*.—Venezuela: Galipán, Cerro del Avila, 14; Rio Maméra, near Antímano, Caracas region, 3.

<sup>2</sup> Quito, Ecuador, suggested as type locality by Hellmayr and Seilern (Verh. Orn. Ges. Bay., 12, p. 160, note 1, 1915).

*Pheucticus chrysogaster* Sclater, Proc. Zool. Soc. Lond., 26, pp. 450, 454, 1858—Cuenca, Ecuador; idem, l.c., 27, p. 140, 1859—Pallatanga, Ecuador; idem, l.c., 28, p. 87, 1860—Calacali and about Quito, Ecuador; idem, Cat. Coll. Amer. Bds., p. 100, 1862—part, spec. a, Pallatanga; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 984—Islay and Arequipa, Peru; Sclater, l.c., 1869, p. 147—vicinity of Lima, Peru; Sclater and Salvin, l.c., 1870, p. 840—part, Ecuador; Lawrence, Mem. Bost. Soc. N. H., 2, p. 275, 1874—Ecuador (crit.); Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 199—Callacate, Peru; Berlepsch and Taczanowski, l.c., 1883, p. 549—Chimbo, Ecuador; idem, l.c., 1884, p. 292—Cechce, Bugnac, and Cayanded, Ecuador (crit.); Taczanowski, Orn. Pér., 3, p. 3, 1886—Peru (Chilpes, Guadalupe, Tumbes, Tambillo, Callacate, Chachapoyas, Huayabamba, Paucal); Sharpe, Cat. Bds. Brit. Mus., 12, p. 52, 1888—part, spec. d-r, Ecuador (Sical, Santa Rita, Pallatanga, Cuenca, Quito, Guayaquil) and Peru (Islay, Arequipa); Allen, Bull. Amer. Mus. N. H., 2, p. 72, 1889—Quito; Salvin, Nov. Zool., 2, p. 6, 1895—Cajabamba, Chusgon (Huamachuco), and Malca, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 22, 1899—La Concepción (Chota), Nanegal, and Cuenca, Ecuador; Goodfellow, Ibis, 1901, p. 473—Quito and Chillo Valley, Ecuador (habits); Berlepsch and Stolzmann, Ornith., 13, p. 68, 1906—Coracora and Pauza, Ayacucho, Peru; Ménégau, Rev. Franç. d'Orn., 2, p. 9, 1911—Choquisongo, Peru; idem, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B74, 1911—Tumbaco and Calacali, Ecuador; Bangs and Noble, Auk, 35, p. 462, 1918—Huancabamba, Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 78, 1922—Quito and Tumbaco, Ecuador.

*Pheucticus chrysopleus* (not *Coccothraustes chrysopleus* Vigors) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 519—Chilpes, Peru; idem, l.c., 1879, p. 229—Tambillo, Peru.

*Pheucticus chrysogaster* subsp. Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 349—Huamani, Garita del Sol, and Maraynioc, Peru.

*Pheucticus chrysopleus chrysogaster* Hartert, Nov. Zool., 5, p. 484, 1898—Ibarra and Cayambe, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 605, 1926—Ecuador (Verdecocha, Pichincha, Mocha, Manta, Tumbaco, Cumbaya, Pallatanga, Puna Island, Santa Rosa, Zaruma, Punta Santa Ana, Salvias, El Paso, Casanga, Celica, Lunamá, Alamor, Cebollal, Loja, Sabanilla, Zamora) and Peru (Paletillas, Palambla, Virú, Huancabamba, Rio Chinchipe, Rumieruz and Utcuyacu, Junfn); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 457, 1930—Santa Eulalia (Lima), Huánuco, Chinchao, and Vista Alegre, Peru; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 76, 1928—Pilon, Alugincho, Tumbaco, and San Pedro Tingo, Ecuador; idem, l.c., (2), 4, pp. 235, 627, 1932—Isla Silva, Cuenca, and El Portete de Tarquí, Ecuador.

*Pheucticus chryscephalus* (lapsu) *chrysogaster* Chapman, Bull. U. S. Nat. Mus., 117, p. 108, 1921—Rio San Miguel, Urubamba, Peru.

*Range*.—Tropical to Temperate zones of Ecuador and Peru south to Arequipa and Puno.<sup>1</sup>

<sup>1</sup> Despite its wide altitudinal distribution ranging from sea-level up to the Temperate zone, I have not been able to make out any local variation. Forty-two specimens from Peru and twenty from Ecuador examined.



27: Peru (Hacienda Limón, west of Balsas, 7; Macate, 11; Huánuco, 3; Vista Alegre, 1; Cullcui, Marañón River, 1; Chinchao, 3; Santa Eulalia, 1).

**\*Pheucticus aureo-ventris aureo-ventris** (Lafresnaye and d'Orbigny). BLACK-RUMPED GROSBEAK.

*Pitylus aureo-ventris* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 84, 1837—"Yungas, Sicasica, Bolivia" (type, from Sicasica, in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 365, pl. 49, figs. 1, 2, 1844—prov. Yungas, Ayupaya, Mizque, Chuquisaca, and Chiquitos, Bolivia.

*Pheucticus aureiventris* Scater, Cat. Coll. Amer. Bds., p. 99, 1862—part, spec. a, b, Bolivia; Pelzeln, Orn. Bras., 3, p. 221, 1870—Villa Maria, no Dourado, and Engenho do Gama, Matto Grosso, Brazil; Scater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 604—Bolivia (d'Orbigny's localities); White, l.c., 1882, p. 598—Campo Santo, Salta; Scater and Hudson, Arg. Orn., 1, p. 43, 1888—Salta; Sharpe, Cat. Bds. Brit. Mus., 12, p. 54, 1888—Sorata, Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—Mapiri, Bolivia; Stempelmann and Schulz, Bol. Acad. Nac. Córdoba, 10, p. 598, 1890—Sierra de Córdoba; Koslowsky, Revist. Mus. La Plata, 6, pp. 278, 290, 1895—Chilecito (La Rioja) and Catamarca; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 8, 1897—San Lorenzo (Jujuy), Tala (Salta), and Cordillera de San Pablo (Tucumán); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 176, 1902—Tucumán; Baer, Ornith., 12, p. 216, 1904—Tapia, La Criolla, and Lagunita, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Orán, Salta; Lillo, Rev. Letr. y Cienc. Soc., 3, p. 42, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 368, 1907 (range); Hartert and Venturi, Nov. Zool., 16, p. 174, 1909—Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 378, 1910 (range in Argentina); Serié and Smyth, El Hornero, 3, p. 53, 1923—Santa Elena, Entre Ríos (apparently recorded from hearsay only); Giacomelli, l.c., 3, p. 69, 1923—Sierra of La Rioja; Pereyra, l.c., 3, p. 174, 1923—Huerta Grande, Córdoba; Dinelli, l.c., 3, p. 254, 1924—cerros of Tucumán at altitudes from 1,000 to 2,000 metr. (habits, nest and eggs); Castellanos, l.c., 5, p. 317, 1934—Valle de los Reartes, Córdoba.

*Pheucticus aureo-ventris* Wetmore, Bull. U. S. Nat. Mus., 133, p. 198, 1926—Tapia, Tucumán; Naumburg, Bull. Amer. Mus. N. H., 60, p. 342, 1930—Urucúm, Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 237, 1930—Salta (Aguaray) and Bolivia (Florida and San José, Santa Cruz; Villa Montes, Tarija); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 395, 1934—Descalvados, Matto Grosso.

*Pheucticus aureiventris aureiventris* Carriker, Proc. Acad. Nat. Sci. Phila., 87, p. 340, 1935—Santa Ana and Teoponte, upper Beni, Bolivia (crit.).

*Range*.—Tropical and Subtropical zones of Bolivia, northwestern Argentina (from Salta and Jujuy south to La Rioja and Córdoba) and extreme southwestern Brazil, in the western parts of Matto

Grosso (Villa Maria, No Dourado, Engenho do Gama, Urucúm, Descalvados).<sup>1</sup>

6: Brazil (Urucúm de Corumbá, Matto Grosso, 1); Bolivia (Parotani, Cochabamba, 1; Buena Vista, 1); Argentina (Concepción, Tucumán, 1; Tafi Viejo, Tucumán, 1; Rio Salí, Tucumán, 1).

***Pheucticus aureo-ventris terminalis* Chapman.<sup>2</sup> CHAPMAN'S GROSBEAK.**

*Pheucticus uropygialis terminalis* Chapman, Proc. Biol. Soc. Wash., 32, p. 266, Dec., 1919—San Miguel Bridge, Urubamba Canyon, Peru (type in the American Museum of Natural History, New York); idem, Bull. U. S. Nat. Mus., 117, p. 108, 1921—San Miguel Bridge and Chauillay, Urubamba, Peru.

(?) *Pheucticus aureiventris* (not *Pitylus aureo-ventris* Lafresnaye and d'Orbigny) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 518—Huanta, Ayacucho, and "Maraynioc, Junín," Peru; Sclater and Salvin, l.c., 1874, p. 677—Ccachupata, Dept. Cuzco, Peru; Taczanowski, Orn. Pér., 3, p. 1, 1886—Huanta and Ccachupata, Peru.

*Pheucticus uropygialis* Taczanowski, Orn. Pér., 3, p. 2, 1886—Huanta, Ayacucho, and Alcatanga, Montañas de Huancayo, southern Junín; Berlepsch and Stolzmann, Ornith., 13, p. 103, 1906—Urquillos, near Cuzco, Peru.

*Range*.—Tropical and Subtropical zones of southern Peru, in depts. of Cuzco and (?) Junín.

***Pheucticus aureo-ventris uropygialis* Sclater and Salvin. YELLOW-RUMPED GROSBEAK.**

*Pheucticus uropygialis* Sclater and Salvin, Proc. Zool. Soc. Lond., for Dec., 1870, p. 840, publ. early in 1871—Bogotá, Colombia (type in coll. of P. L. Sclater, now in British Museum); Wyatt, Ibis, 1871, p. 327—

<sup>1</sup> Specimens from Matto Grosso are perfectly identical with a Bolivian series in coloration, and the single adult male (from Villa Maria=São Luiz de Cáceres) has the bill fully as bulky as the thickest-billed from Bolivia. Argentine birds merely diverge by having the bill on the average slightly smaller.

*Additional material examined*.—Bolivia: Songo, 1; Cocapata, 1; Chicani, 3; Olgin, 2; Santa Cruz, 3; Buena Vista, 6.—Argentina: Salta, 1; Villa Nougues, Tucumán, 2; Tapia, 1; Norco, 1; Tucumán, 2.—Brazil, Matto Grosso: Villa Maria, 1; Engenho do Gama, Rio Guaporé, 2; No Dourado, 1.

<sup>2</sup> *Pheucticus aureo-ventris terminalis* Chapman: Resembling *P. a. meridensis* in comparative absence of black markings on the sides and flanks, in the large size of the white endings of the greater wing coverts, and in yellow spotting to interscapulars, but differing from both *P. a. meridensis* and *P. a. uropygialis* in having large white terminal or slightly subterminal rounded spots instead of small whitish transverse subterminal marks on the upper tail coverts; lower tail coverts whiter; tibiae yellower (compiled from Chapman's original description).

This form, based on two specimens from the Urubamba region, requires further investigation. Three immature males from Carabaya (Oceneque and Limbani) differ nowise from various individuals in a large series from Bolivia and Argentina. Taczanowski records both "*P. aureiventris*" and "*P. uropygialis*" from Huanta, Ayacucho, the former with the rump black like the back and with hardly any white on the upper tail coverts, while the latter, in agreement with Chapman's

above "Matisgua" [= Matisuga], northeast of Bucaramanga, Santander, Colombia; Sharpe, Cat. Bds. Brit. Mus., 12, p. 55, 1888—Colombia (Bogotá and "Pasto").

*Pitylus auriventris* (not of Lafresnaye and d'Orbigny) Bonaparte, Atti Sesta Riun. Scienz. Ital., 1844, p. 405, 1845—Bogotá.

*Pheucticus aureiventer* Scater, Proc. Zool. Soc. Lond., 23, p. 154, 1855—Bogotá.

*Pheucticus uropygialis uropygialis* Chapman, Bull. Amer. Mus. N. H., 36, p. 555, 1917—La Mar, Palo Hueco, Subia, Fomeque, and Chipaque, eastern Andes of Colombia.

*Range*.—Temperate zone of the eastern Andes of Colombia, in states of Cundinamarca and Santander.<sup>1</sup>

**\**Pheucticus aureo-ventris meridensis* Riley.<sup>2</sup> MÉRIDA**

GROSBEAK.

*Pheucticus uropygialis meridensis* Riley, Proc. Biol. Soc. Wash., 18, p. 220, 1905—Pedregosa, Mérida, Venezuela (type in U. S. National Museum); Chapman, l.c., 32, p. 266, 1919—near Mérida.

*Range*.—Subtropical and Temperate zones of the Andes of western Venezuela (Cordillera of Mérida).

1: Venezuela (Rio Chamá, 1).

***Pheucticus aureo-ventris crissalis* Scater and Salvin.<sup>3</sup> YELLOW-THROATED GROSBEAK.**

*Pheucticus crissalis* Scater and Salvin, Proc. Zool. Soc. Lond., 1877, p. 19—Riobamba and Sical, Ecuador (type, from Riobamba, in coll. of P. L.

diagnosis of *terminalis*, is described as having the rump extensively yellow variegated with black, and the upper tail coverts largely tipped with white. The co-existence of two grosbeaks in the same locality appears to be extremely unlikely, and I am rather inclined to think that the differences which caused Taczanowski to refer the Huanta birds to two "species," really signify the limits of individual variation in the inhabitants of southern Peru, where intergradation between the northern yellow-rumped group and the southern black-rumped form might reasonably be expected to take place. Adequate series from the disputed region are urgently needed for the solution of the problem.

<sup>1</sup> *Material examined*.—Colombia: "Bogotá," 15.

<sup>2</sup> *Pheucticus aureo-ventris meridensis* Riley: Nearest to *P. a. uropygialis*, but distinguished by more extensive yellow uropygial area, the presence of half-concealed lemon yellow subterminal spots to the interscapular feathers, and the absence of the black markings on the sides of the abdomen. The other points of distinction mentioned by the describer do not hold in the available series. Five specimens have no trace of black spots underneath, while in two others there are narrow sooty fringes to some of the flank feathers. The under tail coverts are either wholly yellow or with just a few inconspicuous whitish tips. Wing (males), 102–115; tail, 88–95.

*Material examined*.—Venezuela, Mérida: Chamá, 1; Páramo del Morro (alt. 8,000 ft.), 2; Montañas del Morro (alt. 8,200 ft.), 4.

<sup>3</sup> *Pheucticus aureo-ventris crissalis* Scater and Salvin differs readily from the other races by yellow throat and buffy white longer under tail coverts.

*Material examined*.—Ecuador: Baños, Rio Pastaza, 8; San Rafael, 1; La Concepción, 1.

Sclater, now in British Museum); Taczanowski and Berlepsch, l.c., 1885, p. 84—San Rafael; Sharpe, Cat. Bds. Brit. Mus., 12, p. 56, 1888—Riobamba and Sical; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 23, 1899—La Concepción (Chota), Ibarra, and Tumbaco (Quito), Ecuador (crit.); Ménégau, Miss. Serv. Géogr. Armée Mes. Arc. Mérid. Equat., 9, p. B75, 1911—Riobamba; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 78, 1922—Ambato; Chapman, Bull. Amer. Mus. N. H., 55, p. 605, 1926—Riobamba, Cajabamba, Chambo, Mocha, and "Cluvinda," Ecuador.

*Pheucticus aureiventris* (not *Pitylus aureo-ventris* Lafresnaye and d'Orbigny) Sclater, Proc. Zool. Soc. Lond., 26, p. 551, 1858—above Punín and Riobamba; idem, Cat. Coll. Amer. Bds., p. 99, 1862—part, spec. c-e, Riobamba and Cuenca.

*Range*.—Subtropical and Temperate zones of Ecuador.

### Genus HEDYMELES Cabanis

*Habia* (not of Blyth, 1840) Reichenbach, Av. Syst. Nat., pl. 78, June, 1850—type not indicated.

*Hedymeles* Cabanis, Mus. Hein., 1, p. 162, Oct., 1851—new name for *Habia* Reichenbach; type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 71, 1855), *Loxia ludoviciana* Linnaeus.

*Zamelodia* Coues, Bull. Nutt. Orn. Cl., 5, p. 98, 1880—new name for *Hedymeles* Cabanis (supposed to be preoccupied by *Hedymela* Sundevall, 1847).<sup>1</sup>

### \**Hedymeles ludovicianus* (Linnaeus). ROSE-BREASTED GROSBEAK.

*Loxia ludoviciana* Linnaeus, Syst. Nat., 12th ed., 1, p. 306, 1766—based on "Le Gros-bec de la Louisiane" Brisson, Orn., 3, p. 247, pl. 12, fig. 2; Louisiana (type in coll. of M. de Réaumur).

*Loxia rubricollis* P. L. S. Müller, Natursyst., Suppl., p. 151, 1776—based on "Gros-bec de la Louisiane" Daubenton, Pl. Enl., pl. 152, fig. 2.

*Loxia obscura* Gmelin, Syst. Nat., 1, (2), p. 862, 1789—based on "Dusky Grosbeak" Pennant, Arct. Zool., 2, p. 351, No. 216; New York (descr. of female or young).

*Fringilla punicea* Gmelin, Syst. Nat., 1, (2), p. 921, 1789—based on "Red-breasted Finch" Pennant, Arct. Zool., 2, p. 372, No. 245; Sandy Hook (descr. of adult male).

*Loxia rosea* Wilson, Amer. Orn., 2, p. 135, pl. 17, fig. 2, 1810—new name for *Loxia ludoviciana* Linnaeus.

*Fringilla rhodocamptus* Lichtenstein, Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, 1830—Mexico (type in Berlin Museum=adult male); Cabanis, Journ. Orn., 11, p. 56, 1863 (reprint).

*Hedymeles ludovicianus*(a) Sharpe, Cat. Bds. Brit. Mus., 12, p. 58, 1888; Todd and Carriker, Ann. Carnegie Mus., 14, p. 506, 1922—Cincinnati, Colombia; Barbour, Mem. Nutt. Orn. Cl., 6, p. 130, 1923—Cuba; Darlington, Bull. Mus. Comp. Zool., 71, p. 419, 1931—Rio Frio, Magdalena,

<sup>1</sup> Cf. Coues, Auk, 14, pp. 39–42, 1897, and Oberholser, Auk, 36, p. 115, 1919.

Colombia; Wetmore and Swales, Bull. U. S. Nat. Mus., **155**, p. 429, 1931—Hispaniola (Gonave Island; Poste Chabert, Haiti); Griscom, Bull. Amer. Mus. N. H., **64**, p. 347, 1932—Guatemala.

*Zamelodia ludoviciana* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 614, 1901 (monog., full bibliog.); Chapman, Bull. Amer. Mus. N. H., **36**, p. 555, 1917—Paramillo, Barro Blanco, Salento, and Buena Vista, Colombia; idem, l.c., **55**, p. 606, 1926—Esmeraldas and lower Sumaco, Ecuador.

*Range*.—North America from southern Mackenzie, Manitoba, Ontario, Quebec, and Cape Breton Island south to Kansas, southern Missouri, Ohio, New Jersey, and in the mountains to northern Georgia; winters from southern Mexico and Yucatan to Colombia, western Venezuela, and Ecuador; casual on migration in Cuba, Jamaica, Haiti, and the Bahamas; accidental in Arizona, Colorado, and California.

86: Maine (Lincoln, 1); New York (Peterboro, 1; Albion, 1); Massachusetts (Woburn, 1; Cambridge, 1; unspecified, 1); Connecticut (New Haven, 1; East Hartford, 20); New Jersey (Englewood, 1); Wisconsin (Green Lake, 1; Delton, 1; Beaver Dam, 6); Illinois (Highland Park, 2; Deerfield, 3; Lake Forest, 1; Chicago, 5; Des Plaines River, Cook County, 1; Joliet, 3; Momence, 2; Addison, 1; Henry, 5); Arkansas (Winslow, 1); Florida (Nassau County, 1; Key West, 2); Bahama Islands (Watling Island, 1); Mexico (Valles, San Luis Potosí, 1; Cozumel Island, 2); Guatemala (Volcano Tajumulco, San Marcos, 3; San Augustine, Zacapa, 1; Lake Atitlan, 1; Patulúl, Sololá, 1; Mazatenango, 3; San José, Escuintla, 1); Nicaragua (San Gerónimo, 3); Costa Rica (Limón, 1); Colombia ("Bogotá," 3); Venezuela (Maracay, Aragua, 1; Colón, Tachira, 1).

**\*Hedymeles melanocephalus melanocephalus** (Swainson).

ROCKY MOUNTAIN GROSBEAK.

*Guiraca melanocephala* Swainson, Phil. Mag., (n.s.), **1**, No. 6, p. 438, June, 1827—table land of Mexico (type, from Temascaltepec, in coll. of W. Bullock, now in University Museum, Cambridge, Eng.; cf. van Rossem, Auk, **49**, p. 489, 1932, and Trans. San Diego Soc. N. H., **7**, p. 357, 1934).<sup>1</sup>

*Fringilla epopoea* Lichtenstein, Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, 1830—Mexico (restricted type, from Jalapa, Vera Cruz, in Berlin Museum; cf. van Rossem, Trans. San Diego Soc. N. H., **7**, p. 357, 1934); Cabanis, Journ. Orn., **11**, p. 56, 1863 (reprint).

*Fringilla xanthomaschalis* Wagler, Isis, 1831, p. 525—Mexico (cotypes in Munich Museum examined); van Rossem, Trans. San Diego Soc. N. H., **7**, p. 358, 1934 (crit.).<sup>1</sup>

<sup>1</sup> Mr. van Rossem has ascertained by examining the respective types that *Guiraca melanocephala*, as well as *Fringilla epopoea* and *F. xanthomaschalis*, are all referable to the large eastern race of the Black-headed Grosbeak.

(?) *Guiraca tricolor* Lesson,<sup>1</sup> Rev. Zool., 2, p. 102, 1839—Mexico (type in coll. of Dr. Abeillé, Bordeaux; descr. of immature male).

(?) *Pitylus guttatus* Lesson,<sup>1</sup> Rev. Zool., 2, p. 102, 1839—Mexico (type in coll. of Dr. Abeillé, Bordeaux; descr. of adult male).

*Hedymeles melanocephalus papago* Oberholser, Auk, 36, p. 412, 1919—Santa Cruz River, west of Patagone Mountains, Arizona (type in U. S. National Museum).

*Hedymeles melanocephalus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 62, 1888—part, subsp. *a* *H. melanocephalus*.

*Zamelodia melanocephala* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 617, 1901—part (full bibliog.).

*Zamelodia melanocephala melanocephala* van Rossem, Trans. San Diego Soc. N. H., 6, p. 292, 1931—Sonora (Tecoripa, San Javier, Chinobampo, Guirocoba).

*Hedymeles melanocephalus melanocephalus* Griscom, Bull. Mus. Comp. Zool., 75, p. 410, 1934—Chilpancingo, Guerrero (Nov. 15); van Rossem, l.c., 77, p. 478, 1934—Sonora (migrants).

*Range*.—Breeds from southern Saskatchewan to eastern Idaho, Nevada, western Arizona, and the northern states of Mexico (Tamaulipas, Coahuila, and Nuevo León),<sup>2</sup> and east to central North Dakota, central Nebraska, Kansas, and western Texas; winters south to Guerrero and Puebla, Mexico.

42: North Dakota (Cannonball River, 2); Colorado (Lay, 1; Loveland, 1; Fort Lyon, 8); Arizona (Calabasas, 9; Huachuca Mountains, 21).

**\**Hedymeles melanocephalus maculatus* (Audubon).<sup>3</sup> BLACK-HEADED GROSBEAK.**

*Fringilla maculata* Audubon, Bds. of America, folio, 4, pl. 373, figs. 2, 3, 4, 1837 (type from Columbia River, Oregon, in U. S. National Museum; cf. Oberholser, Auk, 36, p. 411 [in text], 1919).

[*Hedymeles melanocephalus*] var. *capitalis* Baird, in Baird, Brewer and Ridgway, Hist. N. Amer. Bds., 2, p. 70, 1874—Columbia River, Oregon (type<sup>4</sup> in U. S. National Museum).

*Zamelodia melanocephala microrhyncha* Grinnell, Condor, 2, p. 128, Nov., 1900—Buckhorn Cañon, Sierra San Gabriel, Los Angeles County, California

<sup>1</sup> These names might just as well refer to the small-billed race (*maculatus*), but fortunately their status does not affect nomenclature, Audubon's name being earlier.

<sup>2</sup> Breeding birds from northeastern Mexico (Tamaulipas and Nuevo León) are stated by Griscom to be intermediate between the two races, and their reference to one rather than to the other is a matter of personal opinion.

<sup>3</sup> *Hedymeles melanocephalus maculatus* (Audubon): Similar to the nominate race, but smaller in all proportions, the bill especially so; postocular streak of tawny usually present. Wing, 96–101, (female) 93–104; tail, 71–81, (female) 75–81; bill, 15–18, (female) 16–19.

<sup>4</sup> According to Oberholser, probably the very same individual that served as basis for Audubon's figure of the adult male.

(type in coll. of J. Grinnell, now in Museum of Vertebrate Zoology, Berkeley; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 302, 1932).

*Hedymeles melanocephalus* (not *Guiraca melanocephala* Swainson) Sharpe, Cat. Bds. Brit. Mus., 12, p. 62, 1888—part,  $\beta$  *H. capitalis*, California.

*Zamelodia melanocephala* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 617, 1901—part, Pacific region of North America and western Mexico (full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 172, 1906—Arroyo del Buey, Durango (May 28, 29).

*Hedymeles melanocephalus melanocephalus* Oberholser, Auk, 36, p. 408, 1919 (monog.).

*Zamelodia melanocephala capitalis* Grinnell, Univ. Calif. Pub. Zool., 32, p. 185, 1928—Lower California.

*Zamelodia melanocephala maculata* van Rossem, Trans. San Diego Soc. N. H., 6, p. 292, 1931—Sonora (Saric, breeding; Tecoripa, San Javier, Tésia, Chinobampo, Guaymas, Guiracoba) (crit.).

*Hedymeles melanocephalus maculatus* Griscom, Bull. Mus. Comp. Zool., 75, p. 410, 1934—Chilpancingo, Guerrero (crit.); van Rossem, l.c., 77, p. 478, 1934—Sonora (Alamos, Oposura) and Chihuahua (La Trompa) (crit.).

**Range.**—Breeds from Vancouver Island and the mainland of southern British Columbia south through California, northern Lower California (south to the western flank of the Sierra San Pedro Mártir), and western Mexico to Oaxaca and Vera Cruz (Jico); winters in southern Lower California and in Mexico.<sup>1</sup>

31: California (Nicasio, 9; Carlotta, 1; Palo Alto, 1; Sherman, Los Angeles County, 3; Los Gatos, 2; Cienega, Los Angeles County, 2; Los Angeles County, 1; Hayward, 1; Anderson, 2; Lakeside, 1; Alameda County, 1); Mexico (Iguala, Guerrero, 7).

### Genus GUIRACA Swainson

*Guiraca* Swainson, Philos. Magaz., (n.s.), 1, No. 6, p. 438, June, 1827—type, by subs. desig. (Swainson, Zool. Journ., 3, No. 11, p. 350, Dec., 1827), *Loxia caerulea* "Wilson"=Linnaeus.

*Coccoborus* Swainson, Nat. Hist. & Class. Bds., 2, p. 111, July, 1837—type, by orig. desig., *Loxia caerulea* Linnaeus.

*Goniaphea* G. R. Gray,<sup>2</sup> Cat. Gen. Subgen. Bds., p. 71, 1855—type, by orig. desig., *Loxia caerulea* Linnaeus.

### \**Guiraca caerulea caerulea* (Linnaeus). EASTERN BLUE-GROSBEAK.

*Loxia caerulea* Linnaeus, Syst. Nat., 10th ed., 1, p. 175, 1758—based on "The Blue Gross-beak" Catesby, Nat. Hist. Carolina, 1, p. 39, pl. 39; "Carolina"=South Carolina.

<sup>1</sup> According to Griscom (l.c., p. 411, 1934), breeding birds from Sonora (Oposura) are not properly separable from Californian specimens; which is corroborated by van Rossem's statement.

<sup>2</sup> *Goniaphea* Bowdich (Excurs. Madeira, p. 29, 1825), according to Sherborn, is a nomen nudum. We have not been able to consult this scarce publication.

*Guiraca caerulea* Sharpe, Cat. Bds. Brit. Mus., 12, p. 66, 1888—part, southeastern United States.

*Guiraca caerulea caerulea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 607, 1901—southeastern United States, in winter south to Cuba and Yucatan (monog., full bibliog.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 130, 1923—Cuba; Dwight and Griscom, Amer. Mus. Novit., 257, p. 4, 1927 (monog., range); Griscom, Bull. Amer. Mus. N. H., 64, p. 348, 1932—Guatemala (Finca Chamá, San Lucas, Sacapulas, Pantaleon, San José).

*Range*.—Breeds in the southeastern United States from western Nebraska, Missouri, southern Illinois, and Maryland south to Texas, southern Alabama, and central Florida, and north sparingly to New Jersey and Pennsylvania; winters in eastern Mexico and Guatemala; casual in Cuba.

18: North Carolina (Raleigh, 1); South Carolina (Charleston, 1); Texas (Kerrville, 1; Fort Worth, 2; Ingram, 3); Mexico (Monterrey, Nuevo León, 1; Cozumel Island, 2; Peto, Yucatan, 1; Rio Lagartos, 1; "Yucatan," 4); Guatemala (El Rancho, Zacapa, 1).

**\**Guiraca caerulea interfusa* Dwight and Griscom.<sup>1</sup> WESTERN BLUE GROSBEAK.**

*Guiraca caerulea interfusa* Dwight and Griscom, Amer. Mus. Novit., 257, p. 4, 1927—Fort Lowell, Arizona (type in coll. of J. Dwight, Jr., now in the American Museum of Natural History, New York); Grinnell, Univ. Calif. Pub. Zool., 32, p. 185, 1928—Colorado delta, Lower California; Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 331, 1929—southern Arizona; van Rossem, Trans. San Diego Soc. N. H., 6, p. 293, 1931—Sarc, Guiracoba, and El Alamo, Sonora (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 348, 1932—Sacapulas, Guatemala (March); idem, Bull. Mus. Comp. Zool., 75, p. 411, 1934—Chilpancingo, Guerrero; van Rossem, l.c., 77, p. 480, 1934—Alamos (March), Hacienda de San Rafael (May), and Oposura (June), Sonora.

*Guiraca caerulea lazula* (not *Pitylus lazulus* Lesson) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 610, 1901—part, Arizona, Chihuahua, etc. (monog., bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 364, 1905—Escuinapa and Arroyo de Limones, Sinaloa (Dec. to April).

*Range*.—Lower Austral zone of southwestern United States from extreme southern Nevada, southeastern California, and northeastern Lower California (Colorado delta region) east to Colorado and New Mexico, and adjacent parts of northwestern Mexico; in winter south to southern Mexico and Guatemala.

32: Colorado (Fort Lyon, 2); Arizona (Calabasas, 5; Fairbank, 1;

<sup>1</sup>*Guiraca caerulea interfusa* Dwight and Griscom: "Similar to *G. c. caerulea*, but larger and paler, the blue of the male less purplish (dark diva or grayish violaceous blue), the anterior wing-band a paler chestnut, the other wing-band



Tucson, 1); Mexico (Tuxpan, Jalisco, 5; Iguala, Guerrero, 8; City of Mexico, 1; Morelia, Michoacán, 1); Guatemala (Los Amates, Izabal, 1; Salama, Baja Vera Paz, 2; El Rancho, Zacapa, 1; Patulúl, Sololá, 1; Laguna, Guatemala Province, 1; Lake Amatitlan, 1; Lake Atitlan, 1).

**\**Guiraca caerulea salicaria* Grinnell.<sup>1</sup> CALIFORNIA BLUE GROSBEAK.**

*Guiraca caerulea salicarius* Grinnell, Proc. Biol. Soc. Wash., 24, p. 163, 1911—Santa Ana River bottom, San Bernardino County, California (type in Museum of Vertebrate Zoology, Berkeley); idem, Univ. Calif. Pub. Zool., 32, p. 185, 1928—Lower California.

*Guiraca caerulea salicaria* Dwight and Grinnell, Amer. Mus. Novit., 257, p. 5, 1927 (monog., range); van Rossem, Trans. San Diego Soc. N. H., 6, p. 293, 1931—Oregon and Tésia, Sonora (winter); idem, Bull. Mus. Comp. Zool., 77, p. 480, 1934—Alamos, Sonora (Feb. 6 to March 22).

*Guiraca caerulea lazula* (not *Pitylus lazulus* Lesson) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 610, 1901—part, California.

*Range*.—Lower Austral zone of California, from the head of the Sacramento Valley and Owens Valley southwards, and Lower California south to about latitude 31°; winters in the Cape district of Lower California and in northwestern Mexico.

5: California (Corona, 1; San Bernardino, 2; Lakeside, 1; Riverside, 1).

***Guiraca caerulea euryhyncha* Coues.<sup>2</sup> ·LARGE-BILLED BLUE GROSBEAK.**

*G. caerulea* var. *euryhyncha* Coues, Amer. Natur., 8, No. 9, p. 563, Sept., 1874—Mexico (type in U. S. National Museum).

*Guiraca caerulea euryhyncha* Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 216—San Andres [Tuxtla], Vera Cruz; Dwight and Griscom, Amer. Mus. Novit., 257, p. 5, 1927—southern Mexico (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 348, 1932—San Lucas and San José, Guatemala; idem, Bull. Mus. Comp. Zool., 75, p. 411, 1934—Coyuca and Chilpancingo, Guerrero (crit.).

*Guiraca chiapensis* Nelson, Proc. Biol. Soc. Wash., 12, p. 61, 1898—Ocozacoatlán, Chiapas, Mexico (descr. of female; type in U. S. National Museum).

still paler and contrasting, both broader, and the winter veiling heavier. Like *G. c. salicaria* in color, but larger, especially the bill; lighter and smaller than *G. c. euryhyncha*. Females and young males larger and paler than *G. c. caerulea*. Wing (male), 88–93; tail, 66–71; bill, 16–17; depth at nostril, 11.3–12." (Dwight and Griscom.)

<sup>1</sup>*Guiraca caerulea salicaria* Grinnell: Similar to *G. c. interfusa* in coloration, but bill decidedly smaller; paler, with wings and tail on average slightly longer, than *G. c. caerulea*.

<sup>2</sup>*Guiraca caerulea euryhyncha* Coues: Like *G. c. caerulea* in deep coloration, but larger, specially the bill; both wing-bands deep chestnut. Wing (adult males), 91–95; tail, 68–72; bill, 17½–18; depth at nostril, 12½–13.

*Guiraca caerulea chiapensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 612, 1901—Chiapas and Oaxaca (monog.).

*Guiraca caerulea lazula* (not *Pitylus lazulus* Lesson) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 610, 1901—part, southern Mexico; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 484, 1927—Presidio, Vera Cruz.

*Range*.—Resident in southern Mexico, from San Luis Potosí and Guanajuato to Oaxaca and Chiapas, and western Guatemala (San Lucas, San José).<sup>1</sup>

**\**Guiraca caerulea lazula* (Lesson).<sup>2</sup> PALE BLUE GROSBEAK.**

*Pitylus lazulus* Lesson, Rev. Zool., 5, p. 174, 1842—"San Carlos (Centre Amérique)"=La Unión, Gulf of Fonseca, El Salvador (type in coll. of R. P. Lesson, present location unknown).

*Guiraca caerulea* (not *Loxia caerulea* Linnaeus) Nutting, Proc. U. S. Nat. Mus., 6, p. 392, 1883—Island of Ometépe, Lake Nicaragua, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 344, 1885—part, Nicaragua (Ometépe, Chinandega); Sharpe, Cat. Bds. Brit. Mus., 12, p. 66, 1888—part, spec. a', Chinandega, Nicaragua; Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 139, 1893—Boruca, Costa Rica (Nov. 29); Underwood, Ibis, 1896, p. 436—Miravalles, Costa Rica.

*Guiraca caerulea lazula* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 610, 1901—part, Nicaragua (Ometépe) and Costa Rica (Boruca); Carriker, Ann. Carnegie Mus., 6, p. 882, 1910—Coyolar and Puntarenas, Costa Rica; Dwight and Griscom, Amer. Mus. Nov., 257, p. 5, 1927—Pacific slope of Costa Rica and Nicaragua (crit.).

*Range*.—Pacific slope of El Salvador, Nicaragua, and Costa Rica.<sup>3</sup>  
1: Costa Rica (Orósi, 1).

**Genus CYANOCOMPSA Cabanis**

*Cyanocompsa* Cabanis, Journ. Orn., 9, p. 4, 1861—type, by orig. desig., *Fringilla parcellina* (Lichtenstein MS.) Bonaparte.

**\**Cyanocompsa parcellina beneplacita* Bangs.<sup>4</sup> NORTHERN BLUE BUNTING.**

<sup>1</sup> An additional race, *G. c. dellarhynchax*, has recently been separated by van Rossem (Bull. Brit. Orn. Cl., 58, p. 133, July 13, 1938—type from Tepic, Nayarit, Mexico, in the British Museum).

<sup>2</sup> *Guiraca caerulea lazula* (Lesson): Similar to *G. c. eurhyncha* in size and color of wing-bands, but the blue portions of the plumage in the male sex decidedly paler and brighter (about diva blue). Wing (adult male), 89–93; tail, 73–75; bill, 17–18; depth at nostril, 12–13.

Two adult males from Managua, Nicaragua, are the only ones we have seen of this apparently valid race.

<sup>3</sup> It remains to be determined whether the grosbeaks, recorded from Caribbean Nicaragua (Chontales) and Costa Rica (Angostura) by Salvin (Ibis, 1873, p. 373) and Lawrence (Ann. Lyc. Nat. Hist. N. Y., 9, p. 102, 1868), respectively, pertain to *G. c. lazula* or are wintering individuals of one of the northern races. The Chontales bird proves, on examination, to be typical of *lazula*.

<sup>4</sup> *Cyanocompsa parcellina beneplacita* Bangs: Similar to *C. p. parcellina*, but with generally smaller, darker bill; male slightly paler blue, and female duller,

*Cyanocompsa parellina beneplacita* Bangs, Proc. Biol. Soc. Wash., 28, p. 126, May, 1915—Santa Leonor, Tamaulipas, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.); Todd, Auk, 40, p. 68, 1923—Tamaulipas and Nuevo León, Mexico (crit.).

*Cyanospiza parellina* (not *Cyanoloxia parellina* Bonaparte) Baird, Rep. Pacif. R. R. Surv., 9, p. 502, 1858—Sierra Madre (Nuevo León) and Tamaulipas; idem, Bds. America, atlas, pl. 56, fig. 1, 1860; idem, Rep. U. S. and Mex. Bound. Surv., 2, (2), p. 17, pl. 18, fig. 1, 1859—Sierra Madre, Nuevo León.

*Guiraca parellina* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 347, 1885—part, Sierra Madre, Nuevo León.

*Passerina parellina* Richmond, Proc. U. S. Nat. Mus., 18, p. 630, 1896—Alta Mira, Tamaulipas.

*Cyanocompsa parellina parellina* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 601, 1901—part, Nuevo León (Boquillo, Sierra Madre, Monterrey), Tamaulipas (Alta Mira), and (?) San Luis Potosí (Valles); Phillips, Auk, 28, p. 89, 1911—Tamaulipas (Guiaves, Carricitos, Rio Martinez, Rio Cruz, Alta Mira, Santa Leonor).

**Range.**—Northeastern Mexico, in states of Nuevo León, Tamaulipas, and (?) San Luis Potosí (Valles).

1: Mexico (Tampico, Tamaulipas, 1).

**\**Cyanocompsa parellina parellina* (Bonaparte). BLUE BUNTING.**

*Cyanoloxia parellina* (Lichtenstein MS.) Bonaparte, Consp. Gen. Av., 1, (2), p. 502, end of 1850—Alvarado [Vera Cruz], Mexico (type in Berlin Museum).

*Goniaphea parellina* Sclater, Proc. Zool. Soc. Lond., 24, p. 302, 1856—Córdoba, Vera Cruz.

*Goniaphea parellina* Sclater, Proc. Zool. Soc. Lond., 25, p. 228, 1857—San Andres Tuxtla, Vera Cruz.

*Guiraca parellina* Sclater, Proc. Zool. Soc. Lond., 27, pp. 365, 378, 1859—Jalapa, Vera Cruz, and Totontepec, Oaxaca; idem, Cat. Coll. Amer. Bds., p. 101, 1862—Jalapa; Boucard, Proc. Zool. Soc. Lond., 1883, p. 444, —Mérida, Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 347, 1885—part, Vera Cruz (Alvarado, Córdoba, Jalapa, San Andres Tuxtla), Oaxaca (Totontepec), and Yucatan (Mérida); Sharpe, Cat. Bds. Brit. Mus., 12, p. 69, 1888—part, spec. d-h, Mexico (Orizaba, Jalapa), Yucatan (Mérida), Meco and Mujeres Islands; Salvin, Ibis, 1888, p. 261—Meco and Mujeres Islands.

*Cyanospiza parellina* Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—hot region of Vera Cruz.

*Passerina parellina* Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 209—Sitalpech, Yucatan (only seen).

less rufescent brown. Birds from southern Tamaulipas (Tampico, Alta Mira), while intermediate, are apparently nearer to this than to the next form. We have not seen any material from San Luis Potosí.

*Cyanocompsa parellina parellina* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 601, 1901—part, Puebla (Metlaltoyuca), Vera Cruz (Mirador, Chichicaxtli, Alvarado, Córdoba, Jalapa, San Andres Tuxtla, Totontepec), Tabasco (Frontera), and Yucatan; Cole, Bull. Mus. Comp. Zool., 50, p. 143, 1906—Chichen-Itzá and Xbac, Yucatan; Todd, Auk, 40, p. 67, 1923—part, Yucatan to Vera Cruz (monog.); Griscom, Amer. Mus. Nov., 235, p. 16, 1926—eastern Yucatan; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 484, 1927—Presidio and Motzorongo, Vera Cruz.

*Range*.—Tropical zone of southeastern Mexico, from Puebla and Vera Cruz south through northern Oaxaca (Totontepec), Tabasco, and Yucatan to Quintana Roo, including Meco and Mujeres Islands.

1: Mexico (unspecified, 1).

***Cyanocompsa parellina indigotica* (Ridgway). TURQUOISE-FRONTED BUNTING.**

*Passerina parellina indigotica* Ridgway, Man. N. Amer. Bds., p. 447, 1887—Manzanillo Bay, Colima, Mexico (type in U. S. National Museum; descr. of adult male).

*Passerina sumichrasti* Ridgway, Man. N. Amer. Bds., p. 447, 1887—Tehuantepec City, Oaxaca, Mexico (type in U. S. National Museum; descr. of immature male).

*Guiraca parellina* (not *Cyanoloxia parellina* Bonaparte) Lawrence, Mem. Bost. Soc. N. H., 2, p. 276, 1874—Manzanillo Bay, Colima; idem, Bull. U. S. Nat. Mus., 4, p. 20, 1876—Tehuantepec City and Huallago, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 347, 1885—part, Presidio (near Mazatlan), Manzanillo Bay, Tehuantepec City, and Huallago; Sharpe, Cat. Bds. Brit. Mus., 12, p. 69, 1888—part, spec. b, Presidio.

*Cyanocompsa parellina indigotica* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 602, 1901—southwestern Mexico, from Sinaloa (Mazatlan) to Colima (Manzanillo Bay); Miller, Bull. Amer. Mus. N. H., 21, p. 364, 1905—Escuinapa, Sinaloa; Todd, Auk, 40, p. 68, 1923—Pacific coast of Mexico from Oaxaca to Mazatlan (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 45, 1927—Labrados, Sinaloa; Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 401, 1928—Chivelá, Oaxaca (crit.).

*Cyanocompsa parellina sumichrasti* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 602, 1901—Oaxaca (Tehuantepec City, Pluma, Huallago).

*Range*.—Pacific coast of western Mexico, from Sinaloa (Mazatlan, Presidio, Escuinapa, Labrados) through Nayarit (Acaponeta), Jalisco, and Colima (Manzanillo Bay) to Oaxaca (Pluma, Tehuantepec City, Huallago, Chivelá).<sup>1</sup>

<sup>1</sup> From the investigations of Todd, Bangs, and Peters it results that the supposedly larger form of Oaxaca (*sumichrasti*) is not separable from *C. p. indigotica*.

**\*Cyanocompsa parellina dearborni** Miller and Griscom.<sup>1</sup> DEARBORN'S BLUE BUNTING.

*Cyanocompsa parellina dearborni* Miller and Griscom, Amer. Mus. Nov., **184**, p. 1, Sept., 1925—San Rafael del Norte, Nicaragua (type in the American Museum of Natural History, New York); Griscom, Bull. Amer. Mus. N. H., **64**, p. 349, 1932—Guatemala; Stone, Proc. Acad. Nat. Sci. Phila., **84**, p. 339, 1932—Cantarranas, Honduras.

*Cyanocompsa parellina* (not *Cyanoloxia parellina* Bonaparte) Dearborn, Field Mus. Nat. Hist., Orn. Ser., **1**, p. 119, 1907—Los Amates and Patulúl, Guatemala (crit.).

*Cyanocompsa parellina parellina* Todd, Auk, **40**, p. 67, 1923—part, Matagalpa, Nicaragua.

*Range.*—Tropical zone of Guatemala (Patulúl; Los Amates), Honduras (Cantarranas; San Pedro), and Nicaragua (San Rafael del Norte, Las Cañas, Matagalpa).

5: Guatemala (Patulúl, 2; Los Amates, 2); Nicaragua (San Rafael del Norte, 1).

**\*Cyanocompsa cyanoides concreta** (Du Bus). BLUE-BLACK GROSBEAK.

*Cyanoloxia concreta* Du Bus, Bull. Acad. Roy. Belgique, **22**, (1), p. 150, 1855—Playa Vicente, Vera Cruz, Mexico (type in Brussels Museum; descr. of male).

*Goniaphea concreta* Sclater, Proc. Zool. Soc. Lond., **24**, p. 302, 1856—Orizaba, Vera Cruz.

*Goniaphea concreta* Sclater, Proc. Zool. Soc. Lond., **25**, p. 228, 1857—Santecomapam, Vera Cruz.

*Guiraca concreta* Sclater, Proc. Zool. Soc. Lond., **27**, p. 378, 1859—Playa Vicente, Vera Cruz; Sclater and Salvin, Ibis, 1860, p. 33—Yzabal, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 101, 1862—Orizaba, Mexico; Sumichrast, Mem. Bost. Soc. N. H., **1**, p. 551, 1869—hot region of Vera Cruz up to Peñuela (near Córdoba); Boucard, Ann. Soc. Linn. Lyon, (n.s.), **25**, p. 44, 1876—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 345, 1885—part, Mexico (Orizaba, Santecomapam, Playa Vicente, Peñuela), Guatemala (Yzabal, Choctum), and British Honduras; Sharpe, Cat. Bds. Brit. Mus., **12**, p. 74, 1888—part, spec. a-k, Mexico (Orizaba), British Honduras, and Guatemala (Vera Paz, Choctum, Yzabal).

*Cyanocompsa concreta concreta* Ridgway; Bull. U. S. Nat. Mus., **50**, Part 1, p. 596, 1901—part, Vera Cruz (Mirador, Orizaba, Santecomapam, Playa

<sup>1</sup>*Cyanocompsa parellina dearborni* Miller and Griscom: Very similar to *C. p. parellina*, but male somewhat brighter blue, and female decidedly darker brown, particularly on forehead and rump. Wing (adult males), 68-70; tail, 52-54; bill, 8-9.

This is rather an unsatisfactory race, of which I should like to see a larger series. A single Nicaraguan female and a male from San Pedro, Honduras, agree well with those from Guatemala.

Vicente), Chiapas (Ocuilapa), and Guatemala; Austin, Bull. Mus. Comp. Zool., **69**, p. 389, 1929—Cayo district, British Honduras.

*Cyanocompsa cyanoides concreta* Todd, Auk, **40**, p. 61, 1923—southern Mexico to British Honduras (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., **67**, p. 484, 1927—Presidio and Motzorongo, Vera Cruz; Griscom, Bull. Amer. Mus. N. H., **64**, p. 349, 1932—Finca Chamá, Secanquim, and Finca Sepacuite, Guatemala.

*Range*.—Tropical zone of southeastern Mexico, in states of Vera Cruz and Chiapas, Guatemala, and British Honduras.<sup>1</sup>

2: Guatemala (Escobas, Izabal, 1; unspecified, 1).

**\**Cyanocompsa cyanoides caerulescens* Todd.<sup>2</sup> COSTA RICAN BLUE GROSBEAK.**

*Cyanocompsa cyanoides caerulescens* Todd, Auk, **40**, p. 61, 1923—Esparta, Costa Rica (type in Carnegie Museum); Kennard and Peters, Proc. Bost. Soc. N. H., **38**, p. 460, 1928—Almirante, Panama; Peters, Bull. Mus. Comp. Zool., **71**, p. 337, 1931—Changuinola, Western River, and Almirante, Panama.

*Guiraca concreta* (not *Cyanoloxia concreta* Du Bus) Salvin, Proc. Zool. Soc. Lond., 1867, p. 141—Santa Fé, Veraguas; Lawrence, Ann. Lyc. Nat. Hist. N. Y., **9**, p. 102, 1868—Turrialba and Angostura, Costa Rica; Frantzius, Journ. Orn., **17**, p. 301, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 189—Panama (Calovévora and Boquete de Chitrá, Veraguas; Bugaba, Chiriquí); Sclater and Salvin, l.c., 1870, p. 836—Honduras; Salvin, Ibis, 1872, p. 317—Chontales, Nicaragua; Nutting, Proc. U. S. Nat. Mus., **6**, p. 400, 1883—Los Sábalos, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 345, 1885—part, Honduras (San Pedro), Nicaragua (Chontales, Los Sábalos), Costa Rica (Turrialba, Angostura), Chiriquí (Bugaba), and Veraguas (Calovévora, Santa Fé, Boquete de Chitrá); Ridgway, Proc. U. S. Nat. Mus., **10**, p. 586, 1887—Segovia River, Honduras; Sharpe, Cat. Bds. Brit. Mus., **12**, p. 74, 1888—part, spec. l-u, Costa Rica (Tempate, Tucurriquí), Chiriquí (Bugaba), and Veraguas (Calovévora, Santa Fé, Chitrá); Richmond, Proc. U. S. Nat. Mus., **16**, p. 492, 1893—Rio Escondido, Nicaragua, and Rio Frio, Costa Rica; Underwood, Ibis, 1896, p. 436—Miravalles, Costa Rica.

<sup>1</sup> Four specimens from Vera Cruz (Orizaba, etc.) and six from Guatemala (Vera Paz) examined.

<sup>2</sup> *Cyanocompsa cyanoides cyanescens* Todd: Similar to *C. c. concreta*, but adult male brighter throughout, dusky slate blue rather than bluish black, with the forehead slightly brighter than the crown, and the sides of the head dull bluish rather than blackish. From *C. c. cyanoides* it may be separated by larger size and darker, duller blue general coloration.

This form is exactly intermediate between *C. c. concreta* and *C. c. cyanoides*, in fact so much so that certain individuals can hardly be told from the latter, while others are very nearly matched by the former. Still, taken as a whole, the best course seems to be the recognition of a third race, for which Mr. Todd has proposed the name *caerulescens*, even if a certain percentage of specimens from southern Central America cannot be distinguished from the allied forms.

Twenty-six specimens, including one from Honduras (San Pedro), two from Chiriquí, and four from Veraguas examined.

*Cyanocompsa cyanoides concreta* Nutting and Ridgway, Proc. U. S. Nat. Mus., 5, p. 392, 1882—La Palma de Nicoya, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Costa Rica (Jiménez, Pacuare, Río Sucio); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 240, 1932—Great Falls, Pis Pis River, Nicaragua (crit.).

*Guiraca cyanoides concreta* Cherrie, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 139, 1893—Costa Rica (Boruca, Térraba, Buenos Aires).

*Cyanocompsa concreta concreta* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 596, 1901—part, Nicaragua (Río Escondido, Los Sábalos) and Costa Rica (Río Frio); Carriker, Ann. Carnegie Mus., 6, p. 883, 1910—Río Frio, Costa Rica; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 339, 1932—Honduras (Segovia River, San Pedro, Santa Ana).

*Cyanocompsa concreta cyanescens* (not of Ridgway, 1898) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 597, 1901—part, southern Honduras (Santa Ana) to Chiriquí; Bangs, Auk, 24, p. 311, 1907—Costa Rica (Boruca, Paso Real, El Pózo de Térraba); Carriker, Ann. Carnegie Mus., 6, p. 884, 1910—Costa Rica (crit., habits, nest and eggs); Rendahl, Ark. Zool., 12, No. 8, p. 31, 1919—Costa Rica (Talamanca, Sipurio; Siquirres, Caño Secco).

*Range.*—Tropical zone of Honduras, Nicaragua, Costa Rica, and western Panama.

15: Nicaragua (San Emilio, Lake Nicaragua, 2); Costa Rica (Siquirres, 2; Matina, 2; Hacienda La Iberia, Province of Limón, 1; Limón, 2; Orósi, 2; Boruca, 2; Buenos Aires, 1); Panama (Veraguas, 1).

**\**Cyanocompsa cyanoides cyanoides* (Lafresnaye). PANAMA  
BLUE GROSBEAK.**

*Coccyborus cyanoides* Lafresnaye, Rev. Zool., 10, p. 74, 1847—Panama (descr. of female; type in coll. of T. B. Wilson, now in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899, and Hellmayr, Nov. Zool., 12, pp. 277-278, 1905).

*Guiraca* sp. Scater, Proc. Zool. Soc. Lond., 28, p. 293, 1860—Esmeraldas, Ecuador.

*Cyanoloria cyanoides* Bonaparte, Consp. Gen. Av., 1, (2), p. 502, 1850—Panama; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 297, 1861—Panama Railroad.

*Guiraca cyanoides* Scater, Cat. Coll. Amer. Bds., p. 101, 1862—part, spec. b, Esmeraldas; Scater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 352—Panama Railroad; idem, l.c., 1879, p. 506—Remedios, Antioquia, Colombia; Berlepsch and Taczanowski, l.c., 1883, p. 549—Chimbo, Ecuador (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 346, 1885—Panama (Lion Hill), Colombia, and Ecuador; Sharpe, Cat. Bds. Brit. Mus., 12, p. 73, 1888—Panama (Lion Hill), Colombia ("Bogotá," Remedios), and Ecuador (Balzar, Esmeraldas); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 23, 1899—Río Peripa, Ecuador.

*Cyanocompsa cyanoides* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 599, 1901—part, Panama (crit.).

*Cyanocompsa concreta cyanescens* Ridgway, Auk, 15, p. 229, July, 1898—Panama (type in U. S. National Museum); Bangs, Proc. New Engl. Zool. Cl., 2, p. 33, 1900—Loma del León, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 597, 1901—part, Panama to western Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 555, 1917—Salaquí (Atrato region), Cocal, and Barbacoas, Pacific Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 275, 1918—Gatún, Panama.

*Cyanocompsa concreta sanctae marta* Bangs, Proc. Biol. Soc. Wash., 12, p. 139, June 3, 1898—"Santa Marta," Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 379, 1930); Allen, Bull. Amer. Mus. N. H., 13, p. 165, 1900—Cacagualito, Colombia; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 67, 1912—Las Quiguas and San Esteban, Carabobo, and near Bucarito (Tocuyo), Lara, Venezuela (crit.).

*Cyanocompsa cyanoides cyanoides* Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 229, 1922—Rio Esnápe, Darien; Todd and Carriker, Ann. Carnegie Mus., 14, p. 507, 1922—Cacagualito, Don Amo, Don Diego, La Tigrera, Minca, and Fundación, Santa Marta region, Colombia; Todd, Auk, 40, p. 62, 1923—Panama to northern Venezuela and western Ecuador (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 606, 1926—western Ecuador (Esmeraldas, Rio de Oro, Cerro Manglar Alto, Chimbo, Bucay, Naránjo, Santa Rosa, La Puente, La Chonta); Darlington, Bull. Mus. Comp. Zool., 71, p. 419, 1931—near Rio Frio, Magdalena, Colombia; Griscom, l.c., 72, p. 371, 1932—Permé and Ranchon, Panama.

*Cyanocompsa concreta cyanoides* Hallinan, Auk, 41, p. 321, 1924—Rio Velazquez, Panama.

**Range.**—Tropical zone of Panama (from the Canal Zone eastwards), south through Colombia to western Ecuador, and eastward through northern Colombia (Santa Marta region; lower Magdalena and affluents; (?) eastern base of the Andes in State of Boyacá) to northern Venezuela as far as Carabobo.<sup>1</sup>

2: Colombia (Fundación, Magdalena, 2).

**\**Cyanocompsa cyanoides rothschildii* (Bartlett).<sup>2</sup> ROTHSCILD'S BLUE GROSBEAK.**

<sup>1</sup> Eight specimens from western Ecuador agree in coloration and in size of bill with two from Panama. Birds from Santa Marta, "Bogotá," and northern Venezuela have generally slightly smaller bills, but we agree with Mr. Todd that this insignificant variation is hardly sufficient to warrant their separation under the name *sanctae marta*, since the color differences alluded to by Hellmayr and Seilern turned out to be non-existent.

**Additional material examined.**—Panama: Lion Hill, 2.—Ecuador: San Javier, Prov. Esmeraldas, 4; Chimbo, 4.—Colombia: "Santa Marta," 4; "Bogotá," 1.—Venezuela: near Bucarito, Tocuyo, Lara, 4; San Esteban, Carabobo, 3; Las Quiguas, Carabobo, 1.

<sup>2</sup> *Cyanocompsa cyanoides rothschildii* (Bartlett): Nearest to *C. c. cyanoides*, but male markedly brighter blue, about hortense blue, with forehead, superciliary and malar regions, and lesser upper wing coverts still brighter (Mazarine blue);



*Guiraca rothschildii*(i) Bartlett, Ann. Mag. Nat. Hist., (6), 6, p. 168, Aug., 1890—River Caramang, British Guiana (type in coll. of E. Bartlett, subsequently in Tring Collection, now in the American Museum of Natural History, New York, examined); Hellmayr, Nov. Zool., 12, p. 277, 1905—Igarapé-Assú, Pará (crit.); idem, l.c., 13, p. 359, 1906—Santo Antonio do Prata, Pará; idem, l.c., 14, p. 45, 1907—Teffé, Rio Solimões; Snethlage, Journ. Orn., 55, p. 295, 1907—Pará and Monte Alegre, Brazil; Berlepsch, Nov. Zool., 15, p. 119, 1908—Cayenne and Ipousin, Approuague River, French Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 426, 1914—Pará, Benevides, Peixe-Boi, Rio Tocantins (Cametá), Rio Jary (Santo Antonio da Cachoeira), and Monte Alegre, Brazil.

*Guiraca cyanoides* (not *Coccyborus cyanoides* Lafresnaye) Sclater, Cat. Coll. Amer. Bds., p. 101, 1862—part, spec. a, Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 566—lower Ucayali, Peru; idem, l.c., 1867, p. 750—Chyavetas, Peru; Pelzeln, Orn. Bras., 3, p. 223, 1870—part, Engenho do Gama, Matto Grosso; Salto do Girão and Borba, Rio Madeira; Marabitanas, Rio Negro (spec. examined).

*Cyanoloxia cyanoides* Finsch, Proc. Zool. Soc. Lond., 1870, p. 582—"Trinidad," errore (crit.).

*Cyanocompsa cyanea cyanoides* Berlioz, Bull. Mus. Nat. Hist. Paris, 34, p. 76, 1928—Rio Suno, eastern Ecuador.

*Guiraca cyanea* (not *Loxia cyaneu* Linnaeus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 264—Nauta, lower Ucayali, and Chyavetas, Peru; Taczanowski, l.c., 1882, p. 16—Yurimaguas, Peru; Salvin, Ibis, 1885, p. 213—Bartica Grove and Camacusa, British Guiana; Taczanowski, Orn. Pér., 3, p. 5, 1886—Peru (Nauta, Ucayali, Chyavetas, Yurimaguas); Sharpe, Cat. Bds. Brit. Mus., 12, p. 71, 1888—part, spec. s-a', d'-i'; Cayenne, Oyapock, Bartica Grove, Camacusa, "Trinidad," Borba, Rio Ucayali, Nauta, and Sarayacu (Ecuador); Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—lower Beni, Bolivia; Chapman and Riker, Auk, 7, p. 268, 1890—Santarém; Penard, Vog. Guyana, 2, p. 385, 1910—Surinam.

*Cyanocompsa cyanea* Beebe, Trop. Wild Life, 1, p. 136, 1917—Bartica, British Guiana.

female decidedly duller, less rusty (Brussels brown above, buckthorn brown below).

Examination of a large series from different parts of the range fails to disclose any other than individual variation. Size and coloration vary a good deal within the same locality, and I doubt the possibility of maintaining the supposed Peruvian race *peruvianus* described by Carriker from very scanty material. While we have not seen any specimens from Junín, two adult males from the Rio Samiría, Peru, are nowise different from others taken in Guiana and on the Caura River, Venezuela. The wing in a small series of males from British Guiana ranges from 76–83, while those from the Rio Samiría measure 79 and 81, respectively. Two native "Bogotá" skins are typical of the present form.

*Additional material examined.*—French Guiana: Saint Laurent du Maroni, 1; Ipousin, Approuague River, 1; Cayenne, 1.—British Guiana: Caramang River, 3; Camacusa, 3.—Venezuela: Munduapo, Orinoco, 1; La Prición, Caura, 4; Nicare, Caura, 1.—Colombia: "Bogotá," 2.—Ecuador: Sarayacu, 1.—Brazil: Ourém, Rio Guamá, 1; Igarapé-Assú, 1; Santo Antonio do Prata, 4; Teffé, Rio Solimões, 2; Marabitanas, Rio Negro, 1; Borba, Rio Madeira, 2; Salto do Girão, Rio Madeira, 1; Engenho do Gama, Matto Grosso, 1.—Peru: Rio Samiría, 2.

*Guiraca cyanea rothschildi* Berlepsch and Hartert, Nov. Zool., 9, p. 24, 1902—Munduapo, Orinoco, and La Prición, Caura, Venezuela (crit.).

*Cyanocompsa rothschildi*(i) Ihering, Cat. Faun. Braz., 1, p. 368, 1907 (range); Hellmayr, Nov. Zool., 17, p. 280, 1910—Borba and Salto do Girão, Rio Madeira; idem, Abhandl. Bayr. Akad. Wiss., Math.-Phys. Kl., 26, No. 2, pp. 15, 88, 1912—Peixe-Boi and Ipitinga (Rio Acará), Pará (Pará localities); Beebe, Zoologica (N.Y.), 2, p. 97, 1916—Utinga, Pará; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 186, 1916—Munduapo, Orinoco, and La Prición, Caura, Venezuela; Chubb, Bds. Brit. Guiana, 2, p. 421, 1921—Ituribisci River, Supenaam, Bartica, Kamakabra Creek, Manarika River, Arawai River, Great Falls of the Demerara, Caramang River, and Camacusa; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 61, 1926—Tury-assú, Maranhão; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 173, 1928—Pará.

*Cyanocompsa cyanoides rothschildi* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 89, 1918—Javaweg, Surinam; Todd, Auk, 40, p. 63, 1923 (monog.); Chapman, Bull. Amer. Mus. N. H., 55, p. 606, 1926—Rio Suno and below San José, eastern Ecuador; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 293, 1929—Tury-assú, Maranhão; Naumburg, Bull. Amer. Mus. N. H., 60, p. 342, 1930—Matto Grosso (Engenho do Gama and Salto do Girão).

(?)*Cyanocompsa cyanoides peruvianus* Carriker, Proc. Acad. Nat. Sci. Phila., 82, p. 373, 1930—Puerto Yessup, Dept. Junín, Peru (type in the Academy of Natural Sciences, Philadelphia).

*Range*.—French, Dutch, and British Guiana; southern Venezuela (valley of the Orinoco and its tributaries) and Amazonia, from northern Maranhão (Tury-assú) west to the eastern base of the Andes in Colombia, Ecuador, and Peru, and south to western Matto Grosso (Engenho do Gama, Rio Guaporé) and eastern Bolivia.

5: British Guiana (Demerara River, Hyde Park, 2); Brazil (Conceição, Rio Branco, Amazonas, 1; Tury-assú, Maranhão, 1; Manáos, Rio Negro, Amazonas, 1).

**\**Cyanocompsa cyanea sterea* Oberholser.<sup>1</sup> SOUTHERN BLUE GROSBEAK.**

<sup>1</sup>*Cyanocompsa cyanea sterea* Oberholser: Similar to *C. c. cyanea*, but adult male decidedly darker and duller; rump and upper tail coverts very nearly the same color as the back, instead of lighter than the latter; pale blue frontal band and superciliaries generally narrower and more abruptly defined.

Birds from so widely separated localities as Rio de Janeiro and Minas Geraes on one side and Rio Grande do Sul on the other agree perfectly together, and a single topotype from Sapucay, Paraguay, is a good match for many individuals, both in coloration and proportions. Four specimens from Goyáz, in size of bill, form the passage to *C. c. argentina*, though the other dimensions are the same as in *C. c. sterea*. Birds from Corrientes are variously intermediate to *argentina*, one male being just as small-billed as (and hardly larger than) *sterea*, while another male in proportions of wing, tail, and bill closely approaches certain individuals from Argentina. Their subspecific reference is entirely a matter of personal opinion,

*Cyanocompsa sterea* Oberholser, Proc. Biol. Soc. Wash., 14, p. 188, 1901—Sapucay, Paraguay (type in U. S. National Museum; descr. of young male); idem, Proc. U. S. Nat. Mus., 25, p. 146, 1902—Sapucay.

*Pitylus cyaneus* (not *Loxia cyanea* Linnaeus) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 84, 1837—part, Corrientes (spec. examined).

*Coccyborus cyaneus* Burmeister, Syst. Uebers. Th. Bras., 3, p. 237, 1856—Lagõa Santa, Minas Geraes.

*Guiraca cyanea* Pelzelin, Orn. Bras., 3, p. 221, 1870—Rio de Janeiro, São Paulo (Pahor, Mattodentro, Ypanemá), and Goyáz (spec. examined); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 415—part, Minas Geraes (Lagõa Santa), Rio de Janeiro (Rosario, near Nova Friburgo), and São Paulo (Capitão Mor, São Carlos); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 121, 1885—Taquara do Mundo Novo, Rio Grande do Sul; Sharpe, Cat. Bds. Brit. Mus., 12, p. 71, 1888—part, spec. g-l, Rio de Janeiro (Nova Friburgo), Rio Grande do Sul ("Pelotas"), and São Paulo (Ypanemá); Ihering, Ann. Est. Rio Grande do Sul, 16, p. 120, 1899—Mundo Novo; idem, Rev. Mus. Paul., 3, p. 159, 1899—São Paulo (Piquete, São Sebastião); idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; Chubb, Ibis, 1910, p. 631—Sapucay, Paraguay.

*Cyanocompsa cyanea* Cabanis, Journ. Orn., 22, p. 85, 1874—Cantagallo, Rio de Janeiro; Ihering, Cat. Faun. Braz., 1, p. 368, 1907—part, São Paulo (São Sebastião, Rio Feio, Baurú, Itatiba, Itararé, Rincão, Mogy-guassú), Minas Geraes (Vargem Alegre), and Espirito Santo (Rio Doce); Ménégau, Rev. Franç. d'Orn., 10, p. 335, 1918—Rio los Pedras, near Passo Quatro, Minas Geraes.

*Cyanocompsa cyanea cyanea* Hellmayr, Nov. Zool., 15, p. 32, 1908—Rio Araguaia, Goyáz (crit.); Dabbene, Anal. Mus. Nac. Buenos Aires, 23, p. 358, 1912—Villa Rica, Paraguay (crit.); Bertoni, Faun. Parag., p. 63, 1914—Alto Paraná, Paraguay; Todd, Auk, 40, p. 65, 1923—part, southern Brazil west to Goyáz and Paraguay (crit.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 187, 1926—Paraná (Therezina, Candido de Abreu, Salto Guayra); Holt, Bull. Amer. Mus. N. H., 57, p. 315, 1928—Monte Serrat and Bemfica, Itatiaya, São Paulo.

*Cyanocompsa cyanea sterea* Bertoni, Faun. Parag., p. 63, 1914—Paraguay; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 293 (in text), 1929—southern Brazil (from Goyáz and Minas Geraes to Rio Grande do Sul), Paraguay, and Misiones (crit.).

*Range*.—Southern Brazil, from Goyáz, Minas Geraes, and Espirito Santo south to Rio Grande do Sul; Paraguay; northeastern Argentina (Corrientes and Misiones).

and if they are here classified with *sterea* rather than *argentina*, it is done so mainly on geographical grounds.

*Additional material examined*.—Paraguay: Sapucay, 2; Villa Rica, 1.—Brazil: Goyáz City, 2; Rio Araguaia (near Leopoldina), Goyáz, 2.—Rio de Janeiro: Petropolis, 1; Rio de Janeiro, 2.—São Paulo: Piquete, 2; Victoria, 1; São Sebastião, 2; Ipanemá, 8; Mattodentro, 1.—Rio Grande do Sul: Taquara do Mundo Novo, 3.

10: Brazil (Veadeiros, Goyáz, 1; Rio das Velhas, Minas Geraes, 2; Candido de Abreu, Paraná, 1); Argentina (Eldorado, Misiones, 2; Puerto Segundo, Misiones, 3; Iguazu, Misiones, 1).

**\**Cyanocompsa cyanea argentina* (Sharpe).<sup>1</sup> ARGENTINE BLUE GROSBEAK.**

<sup>1</sup>*Cyanocompsa cyanea argentina* (Sharpe): Similar to *C. c. sterea*, but markedly larger with heavier, bulkier bill; coloration of males generally lighter (dark cadet blue); females above more rufescent, particularly on the rump, and under parts paler cinnamonaceous.

The subjoined table of measurements may serve to illustrate the variation in size.

Adult males	Wing	Tail
Three from Córdoba (Cosquin)	89, 90, 92	84, 86, 87
One from La Rioja (Chilecito)	89	88
One from Santiago del Estero (Corral)	89	88
Two from Salta (Orán; Rosario Frontera)	84, 88	79, 83
Six from Tucumán	85, 87, 88, 88, 89, 90	83½, 85, 85, 86, 87, 87
One from Samaipata, Bolivia	85	79
One from San José, Mizque, Bolivia	86	82½
One from Caraparicito, Bolivia	81	76
One from Santa Cruz, Bolivia	84	77½
Three from San José, Chiquitos, Bolivia	80, 82, 82	74, 77, 78
Three from Cuyabá, Matto Grosso	84, 84, 84	78, 79, 80
Two from Urucúm, Matto Grosso	82, 83	76, 77
Adult females		
One from Córdoba (Cosquin)	89	90
One from Catamarca (Fuerte de Andalgala)	86	80
One from Santiago del Estero (Corral)	83	78
Two from Salta (Campo Santo)	79, 84½	-, 77½
One from Tucumán	82	81
Two from Mizque, Bolivia	81½, 82½	80, 82
One from Villa Montes, Tarija	77	76
One from San José, Chiquitos	78	74
One from Chulumani, La Paz	76	73

Birds from western Argentina, when compared to series from southeastern Brazil, are decidedly larger, and have more massive, both longer and thicker bills, these characters being most strongly pronounced in skins from the Sierra de Córdoba. Specimens from Cuyabá, Matto Grosso, are fully as large-billed, but have possibly slightly shorter wings. Those from Santa Fé (Mocovi, Chaco) are truly intermediate to *C. c. sterea*, to which they might be referred with equal justification, and if we keep them under the present heading, we are mainly guided by geographical reasons.

Two names have been proposed for birds from Bolivia. Only one male from Santa Cruz de la Sierra corresponds to Todd's description of *C. c. poliogastris* in having the middle of the abdomen whitish and similar apical margins to some of the pectoral feathers. Males from west (Samaipata; San José, Mizque) and east (Caraparicito; San José, Chiquitos) of this locality, however, have no trace of white underneath, and it is hard to believe that in the center of the area a separate local race should exist. In measurements of wings and bill birds from the Bolivian highlands (Samaipata and Mizque) agree with the smallest individuals from north-

*Guiraca argentina* Sharpe, Cat. Bds. Brit. Mus., 12, p. 73, 1888—Catamarca (Fuerte de Andalgala), Córdoba (Cosquin), Salta, and Tucumán (type, from Fuerte de Andalgala, Catamarca, in British Museum; cf. Brabourne and Chubb, Bds. S. America, 1, p. 363, 1912); Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 5, 1895—Santa Rosa, Salta; idem, l.c., 12, No. 292, p. 8, 1897—Jujuy (San Lorenzo), Salta (Tala), and Bolivian Chaco (Caiza); Lönnberg, Ibis, 1903, p. 451—Tatarenda, Bolivian Chaco.

*Guiraca glaucocaerulea* (not *Pyrrhula glaucocaerulea* Lafresnaye and d'Orbigny) Salvin, Ibis, 1880, p. 353—Tucumán and Salta.

*Guiraca cyanea* (not *Loxia cyanea* Linnaeus) Pelzeln, Orn. Bras., 3, p. 221, 1870—part, Cuyabá, Matto Grosso; White, Proc. Zool. Soc. Lond., 1882, p. 598—Fuerte de Andalgala, Catamarca; Allen, Bull. Amer. Mus. N. H., 3, p. 368, 1891—Chapada, Matto Grosso; Kerr, Ibis, 1892, p. 125—Fortín Page, lower Pilcomayo; Koslowsky, Rev. Mus. La Plata, 6, pp. 278, 290, 1895—La Rioja (Chilecito) and Catamarca; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 4, 1900—Urucum, Matto Grosso.

*Cyanocopsa cyanea* Ihering, Cat. Faun. Braz., 1, p. 368, 1907—part, Matto Grosso.

*Guiraca cyanoides* (not *Coccyboides cyanoides* Lafresnaye) Pelzeln, Orn. Bras., 3, p. 222, 1870—part, Cuyabá (spec. examined).

*Coccyboides cyaneus argentinus* Stempelmann and Schulz, Bol. Acad. Cienc. Córdoba, 10, p. 398, 1890—Córdoba.

*Guiraca cyanea* subsp. *argentina* Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 176, 1902—Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 42, 1905—Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Orán, Salta.

*Guiraca cyanea argentina* Baer, Ornith., 12, p. 216, 1904—Santa Ana, Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 174, pl. 2, fig. 30 (egg), 1909—Tucumán (nest and eggs).

*Cyanocopsa cyanea* subsp. *argentina* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 379, 1910 (range in Argentina).

*Cyanocopsa cyanea argentina* Todd, Auk, 40, p. 64, 1923—Argentina to Bolivia (crit.); Giacomelli, El Hornero, 3, p. 69, 1923—La Rioja; Dinelli, l.c., 3, p. 255, 1924—Tucumán (nest and eggs descr.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 398, 1926—Las Palmas, Chaco, and Tapia, Tucumán; Friedmann, Bull. Mus. Comp. Zool., 68, p. 230, 1927—Con-

western Argentina, but have somewhat shorter tails. Those from Chiquitos and one from Carapacito are decidedly smaller, the bill noticeably so. The type of *C. c. pallida* from Chulamani is a perfectly normal female of this variety, and can be matched in size and coloration by one from San José, Chiquitos. The late Mr. Sztolcman evidently compared it with specimens of *C. c. sterea* (from Paraná), which he mistook for true *cyanea*. There might be some justification in separating the inhabitants of eastern Bolivia (Santa Cruz; Chiquitos) on the basis of their lesser size and smaller bill, were it not that birds from Matto Grosso again have quite as massive bills as any from Argentina.

*Additional material examined.*—Bolivia: Samaipata, 1; San José, Mizque, 1; Santa Cruz, 1; San José, Chiquitos, 4; Carapacito, Santa Cruz, 1; Villa Montes, Tarija, 4.—Matto Grosso: Cuyabá, 3.—Argentina: Orán, Salta, 1; Campo Santo, Salta, 1; Rosario Frontera, Salta, 1; Tucumán, 6; Tapia, Tucumán, 1; Santa Ana, Tucumán, 1; Corral, Santiago del Estero, 2; Fuerte de Andalgala, Catamarca, 2; Chilecito, La Rioja, 1; Cosquin, Córdoba, 4; Mocoví, Santa Fé, 2.

cepción, Tucumán; Smyth, El Hornero, 4, p. 148, 1928—Manchalá, Tucumán (eggs descr.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 342, 1930—Matto Grosso (crit.); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 241, 1930—Bolivia (San José and Carapacito, Santa Cruz; Villa Montes, Tarija [crit.]); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 395, 1934—Descalvados, Matto Grosso.

*Cyanocompsa cyanea polioastris* [sic] Todd, Auk, 40, p. 64, 1923—Guanacos, Prov. Cordillera, Bolivia (type in Carnegie Museum, Pittsburgh).

*Cyanocompsa cyanea pallida* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 230, 1926—Chulumani, Dept. La Paz, Bolivia (type in Warsaw Museum examined; descr. of female).

*Range*.—Western Argentina south to La Rioja, Córdoba, and Santa Fé; central and eastern Bolivia, in depts. of Tarija, Santa Cruz, and Cochabamba; western Matto Grosso (Cuyabá, Chapada, Descalvados).

6: Brazil (Urucúm de Corumbá, Matto Grosso, 2); Argentina (Concepción, Tucumán, 4).

**\**Cyanocompsa cyanea cyanea* (Linnaeus). BRAZILIAN BLUE GROSBEEK.**

*Loxia cyanea* Linnaeus, Syst. Nat., 10th ed., 1, p. 174, 1758—based on "The Blue Grosbeak" Edwards, Nat. Hist. Bds., 3, p. 125, pl. 125; "coast of Angola, in Africa," error; Bahia, eastern Brazil, suggested as type locality by Todd (Auk, 40, p. 65, 1923).<sup>1</sup>

*Fringilla brissonii* Lichtenstein, Verz. Doubl. Berliner Mus., p. 22, 1823—based on *Loxia caerulea* var.  $\beta$  Gmelin, Syst. Nat., 1, (2), p. 863, 1789, which, in its turn, rests exclusively upon "Le Bouvreuil bleu du Brésil" Brisson, Orn., 3, p. 321, pl. 17, fig. 2; "Brésil" (type in coll. of M. de Réaumur);<sup>2</sup> Wied, Beitr. Naturg. Bras., 3, (1), p. 561, 1830—[near Barra da Vareda], Bahia.

*Coccyborus cyaneus* Cabanis, Mus. Hein., 1, p. 152, 1851—Bahia.

*Guiraca cyanea* Forbes, Ibis, 1881, p. 335—Pernambuco (road from Olinda to Iguarassú, Parahyba, and Garanhuns); Sharpe, Cat. Bds. Brit. Mus., 12, p. 71, 1888—part, spec. m-r, Pernambuco and Bahia; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—Bahia City.

*Cyanocompsa cyanea* Ihering, Cat. Faun. Braz., 1, p. 368, 1907—part, Bahia.

*Cyanocomosa* [sic] *cyanea* Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará.

<sup>1</sup> As we have pointed out elsewhere (Nov. Zool., 15, p. 32, note, 1908), the alleged African origin of *Loxia cyanea* and *Loxia angolensis* was clearly a mistake. While it is, of course, impossible to decide where the specimen described by Edwards came from, his figure in bright purplish blue coloration corresponds so well with the northern form of the Brazilian Grosbeak that we may accept Mr. Todd's designation of Bahia as type locality.

<sup>2</sup> There being no means of ascertaining whether Brisson's description was based upon the northern (*cyanea*) or the southern race (*sterea*), the name *Fringilla brissonii* Lichtenstein is placed here tentatively as a synonym of *Loxia cyanea*.

*Cyanocompsa cyanea cyanea* Todd, Auk, 40, p. 65, 1923—part, Pernambuco and Bahia (crit.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 292, 1929—Piauhý (Arára, Ibiapaba) and Ceará (Varzea Formosa) (crit.).

*Range*.—Northeastern Brazil, from Bahia north to Ceará and eastern Piauhý.

10: Brazil (Santo Amaro, Bahia, 1; Macaco Secco, near Andarahy, Bahia, 1; Rio do Peixe, near Queimadas, Bahia, 1; Arára, Piauhý, 3; Ibiapaba, Piauhý, 1; Varzea Formosa, Ceará, 3).<sup>1</sup>

**\**Cyanocompsa cyanea minor* Cabanis.<sup>2</sup> LESSER BLUE GROSBEAK.**

*Cyanocompsa minor* Cabanis, Journ. Orn., 9, p. 4, 1861—Caracas, Venezuela (type in Berlin Museum examined).

*Guiraca cyanea* (not *Loxia cyanea* Linnaeus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 627—Caracas; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 415—part, Caracas; Sharpe, Cat. Bds. Brit. Mus., 12, p. 71, 1888—part, spec. b', c', Caracas; Phelps, Auk, 14, p. 364, 1897—San Antonio, Sucre, Venezuela.

*Cyanocompsa cyanea minor* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 164, 1912—San Esteban, Carabobo; Todd, Auk, 40, p. 66, 1923—part, Venezuela from Cumaná to the Sierra of Carabobo (crit.).

*Range*.—Tropical zone of the coast states of Venezuela, from Sucre and Monagas west to Carabobo.

18: Venezuela (Caracas, 8; Maracay, Aragua, 1; Cocollar, Sucre, 9).

***Cyanocompsa cyanea cauae* Chapman.<sup>3</sup> CAUCA BLUE GROSBEAK.**

*Cyanocompsa cyanea cauae* Chapman, Bull. Amer. Mus. N. H., 31, p. 163, June, 1912—La Manuelita, near Palmira, Cauca Valley, Colombia (type in the American Museum of Natural History, New York); idem, i.e., 36, p. 555, 1917—Palmira, Cauca, and Caldas, Rio Dagua, Colombia.

*Cyanocompsa cyanea minor* (not of Cabanis). Todd, Auk, 40, p. 66, 1923—part, Cauca Valley, Colombia.

<sup>1</sup> *Additional material examined*.—Bahia: Bahia City, 1; Lamarão, 3; unspecified, 22.—Pernambuco: São Lourenço, 1.—Ceará: unspecified, 1.

<sup>2</sup> *Cyanocompsa cyanea minor* Cabanis: Similar in bright coloration of adult male to *C. c. cyanea*, but with smaller, shorter, basally more inflated bill. Wing, 73–76, (female) 67–71; tail, 65–70, (female) 65–68; bill, 14–15.

The smaller bill is the only constant character to separate the Venezuelan race from typical *cyanea*, of northeastern Brazil. The males are just as bright purplish blue, while the females average slightly paler brown above.

*Additional specimens examined*.—Venezuela: Maturin, Monagas, 1; San Antonio, Sucre, 1; Salsi Puede, Sucre, 6; Santa Ana Valley, Sucre, 4; San Felix, Sucre, 2; Caracas, 2; San Esteban, Carabobo, 1.

<sup>3</sup> *Cyanocompsa cyanea cauae* Chapman: Very similar to *C. c. minor*, but adult male with upper and under parts decidedly purer, more of an ultramarine blue instead of purplish. Wing, 74–77; tail, 67–70; bill, 14–15.

Comparison of a good series from northern Venezuela shows size and shape of the bill in *cauae* and *minor* to be the same, the strongly convex, basally much inflated maxilla being common to both in contrast to *C. c. cyanea*. Mr. Todd

*Range*.—Tropical zone of western Colombia (Cauca Valley and basin of the Rio Dagua).

### Genus CYANOLOXIA Bonaparte

*Cyanoloxia* Bonaparte, *Consp. Gen. Av.*, 1, (2), p. 502, end of 1850—type, by present designation, *Pyrrhula glauco-caerulea* Lafresnaye and d'Orbigny.<sup>1</sup>

*Cyanoloxias* Ihering, *Rev. Mus. Paul.*, 6, "1904," p. 348, March, 1905—emendation.

### \**Cyanoloxia glauco-caerulea* (Lafresnaye and d'Orbigny).

#### GLAUCOUS GROSBEAK.

*Pyrrhula glauco-caerulea* Lafresnaye and d'Orbigny, *Syn. Av.*, 1, in *Mag. Zool.*, 7, cl. 2, p. 85, 1837—Maldonado, Uruguay (type in Paris Museum examined; descr. of adult male); d'Orbigny, *Voy. Amér. Mérid.*, Ois., pl. 50, fig. 2 (male), circa 1840.

*Cyanoloxia glauco-caerulea* Bonaparte, *Consp. Gen. Av.*, 1, (2), p. 503, 1850—Maldonado.

*Coccyborus glaucocaeruleus* Burmeister, *Journ. Orn.*, 8, p. 257, 1860—Paraná, Entre Ríos; idem, *Reise La Plata St.*, 2, p. 488, 1861—Paraná (one male in Halle Museum examined); Doering, *Period. Zool. Arg.*, 1, p. 254, 1874—Rio Guayquiraro, Corrientes.

*Guiraca glauco-caerulea* Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1868, p. 139—Conchitas, Buenos Aires; Hudson, l.c., 1870, p. 114—Conchitas (habits); Pelzeln, *Orn. Bras.*, 3, p. 222, 1870—Engenho do Gama, Matto Grosso, Brazil (spec. examined); Durnford, *Ibis*, 1877, p. 170—Punta Lara, Buenos Aires; Barrows, *Bull. Nutt. Orn. Cl.*, 8, p. 92, 1883—Concepción del Uruguay, Entre Ríos; Berlepsch and Ihering, *Zeits. Ges. Orn.*, 2, p. 122, 1885—Taquara, Rio Grande do Sul (spec. examined); Sharpe, *Cat. Bds. Brit. Mus.*, 12, p. 75, 1888—"River Oyapock, French Guiana" and Punta Lara, Buenos Aires; Sclater and Hudson, *Arg. Orn.*, 1, p. 44, 1888 (habits); Aplin, *Ibis*, 1894, p. 168—Uruguay; Ihering, *Anuario Est. Rio Grande do Sul*, 16, p. 120, 1899—São Lourenço and Mundo Novo, Rio Grande do Sul; (?) Lillo, *Anal. Mus. Nac. Buenos Aires*, 8, p. 177, 1902—near Tucumán (sight record); (?) idem, *Rev. Letr. Cienc. Soc.*, 3, No. 13, p. 42, 1905—near Tucumán (sight record); Hartert and Venturi, *Nov. Zool.*, 16, p. 174, pl. 2, figs. 25, 29 (eggs), 1909—Salto Grande, Rio Paranapanema, São Paulo, and Barracas al Sud, Buenos Aires; Chubb, *Ibis*, 1910, p. 632—Sapucay, Paraguay.

*Cyanoloxia glaucocaerulea* Oberholser, *Proc. U. S. Nat. Mus.*, 25, p. 146, 1902—Sapucay, Paraguay; Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18,

has united the two races, but I hesitate to follow this course in consideration of the different coloration of the male, connected with the widely remote range.

*Material examined*.—Colombia: Jiménez, Rio Dagua (alt. 1,600 ft.), 5; Atuncela, 7.

<sup>1</sup> The same species was indicated as "type by elimination" by Ridgway (*Bull. U. S. Nat. Mus.*, 50, Part 1, p. 594, footnote, 1901) and Dabbene (*Anal. Mus. Nac. Buenos Aires*, 18, p. 379, 1910).



pp. 379, 436, 1910—Santa Ana, Misiones (range in Argentina); idem, El Hornero, 1, p. 244, 1919—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 23, 1920—Uruguay (San José, Flores, Rio Negro); Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 171, 1923—San Isidro, Buenos Aires (breeding); Marelli, Mem. Minist. Obr. Públ. for 1922-23, p. 657, 1924—Prov. Buenos Aires; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 187, 1926—Therezina, Paraná; Naumburg, Bull. Amer. Mus. N. H., 60, p. 343, 1930—Matto Grosso (range). *Cyanoloxias glaucocaerulea* Ihering, Rev. Mus. Paul., 6, "1904," p. 348, 1905—Botucatu, São Paulo, and Las Talas, Buenos Aires; idem, Cat. Faun. Braz., 1, p. 368, 1907—São Paulo (Rio Feio, Botucatu) and Las Talas, Argentina; Bertoni, Faun. Parag., p. 63, 1914—Alto Paraná, Paraguay.

*Range*.—Southern Brazil north to Matto Grosso and Bahia; Uruguay; Paraguay; northeastern Argentina (Santa Ana, Misiones; Paraná, Santa Elena, and Concepción del Uruguay, Entre Ríos; Rio Guayquiraro, Corrientes; Barracas al Sud, Las Talas, Punta Lara, San Isidro, and Isla Martín García, Buenos Aires).<sup>1</sup>

6: Uruguay (Rio Cebollati, Minas, 2; Polanco, Minas, 1; Rio Uruguay, Soriano, 1; San Vicente de Castillos, Rocha, 2).

### Genus *PASSERINA* Vieillot

*Passerina* Vieillot, Analyse Nouv. Orn. Elém., p. 30, April, 1816—type, by subs. desig. (Gray, List Gen. Bds., p. 46, 1840), "Ministre" Buffon = *Tanagra cyanea* Linnaeus (cf. Coues, Bull. Nutt. Orn. Cl., 5, p. 96, 1880).

*Cyanospiza* Baird, Rep. Expl. Surv. R. R. Pacif., 9, p. 500, June 19, 1858—type, by orig. desig., *Tanagra cyanea* Linnaeus.

### \**Passerina cyanea* (Linnaeus).<sup>2</sup> INDIGO BUNTING.

<sup>1</sup> Specimens from Uruguay, Buenos Aires, Rio Grande do Sul, and São Paulo agree well together, and a young male (in change of plumage) from Matto Grosso (Engenho do Gama) does not differ either from another of similar age taken at Taquara do Mundo Novo. A single male (with some remains of the juvenile plumage on the wings) of the well-known Bahia preparation is more purely blue (less greenish blue), and has a larger, more elevated bill than any other specimen we have seen. The occurrence of this species in western Argentina remains to be corroborated, there being merely one sight record (by Lillo) from the vicinity of Tucumán City, whereas *G. glaucocaerulea* Salvin (Ibis, 1880, p. 353) from Salta refers to *C. c. argentina* as is shown by Durnford's specimens in the British Museum. The British Museum has an adult male received from Madame Verdey, a natural history dealer of Paris, and marked "Oyapock, French Guiana." Prepared like the trade skins formerly imported from Cayenne, it is similar in coloration and size to southern examples, but the locality seems so extraordinary that I hesitate to accept it without further evidence.

*Additional material examined*.—Uruguay: Maldonado, 1 (the type).—Argentina: Barracas al Sud, Buenos Aires, 2; Paraná, Entre Ríos, 1.—Brazil: Bahia, 1; Fazenda Cayoá, Rio Paranapanema, São Paulo, 1; Taquara do Mundo Novo, Rio Grande do Sul, 1; Camaquã, Rio Grande do Sul, 1; São Lourenço, Rio Grande do Sul, 1; Rio Grande do Sul (unspecified), 2; Engenho do Gama, Matto Grosso, 1.—"French Guiana: Oyapock," 1.

<sup>2</sup> A supposed hybrid (or intergrade?) between *P. cyanea* and *P. amoena* was described and figured by Breckenridge (Univ. Minnesota Mus. Nat. Hist., Occ. Pap., No. 3, p. 39, col. pl., 1930) from near Warren, Marshall County, Minnesota.

*Tanagra cyanea* Linnaeus, Syst. Nat., 12th ed., 1, p. 315, 1766—based on "The Blue Linnet" Catesby, Nat. Hist. Carolina, 1, p. 45, pl. 45; Carolina = South Carolina.

*Emberiza cyanella* Sparrman, Mus. Carls., fasc. 2, pls. 42, 43, 1787—"in America septentrionali" (descr. of young male; type now in Stockholm Museum; cf. Gyldenstolpe, Ark. Zool., 19, A, No. 1, p. 21, 1926).

(?) *Emberiza caerulea* Gmelin, Syst. Nat., 1, (2), p. 876, 1789—based mainly on "Le Bruant bleu de Canada" Brisson, Orn., 3, p. 298, pl. 14, fig. 2; Canada (type in Réaumur Collection).

*Cyanospiza cyanea* Sharpe, Cat. Bds. Brit. Mus., 12, p. 617, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 582, 1901 (monog., full bibliog.).

*Passerina cyanea* Carriker, Ann. Carnegie Mus., 6, p. 886, 1910—Costa Rica (Bolson, Coralillo, Volcan de Póas, Pózo Azul, Santa Ana, Tierra Blanca); Barbour, Mem. Nutt. Orn. Cl., 6, p. 130, 1923—Cuba (transient); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 403, 1928—Chivelá, Tapana-tepec, and Cacoprieto, Oaxaca, Mexico; Griscom, Bull. Amer. Mus. N. H., 64, p. 365, 1932—Guatemala (winter visitant, October to April); idem, Bull. Mus. Comp. Zool., 78, p. 381, 1935—Pacific slope of Chiriquí and Veraguas, Panama (winter).

*Range.*—Eastern North America, from North Dakota, Minnesota, Michigan, southeastern Ontario, and southern Quebec and New Brunswick, south to Texas, Louisiana, Alabama, Georgia, and northern Florida; winters from eastern Mexico to western Panama (Veraguas); on migration in the Bahamas and in Cuba.

109: New York (Conquest, Cayuga County, 1; Moravia, Cayuga County, 1); Massachusetts (Ipswich, 1; Cambridge, 2; unspecified, 1); Connecticut (East Hartford, 13); New Jersey (Englewood, 1); North Carolina (Raleigh, 2); Wisconsin (Beaver Dam, 11); Illinois (Deerfield, 1; Lake Forest, 2; Chicago, 10; South Chicago, 1; Wolf Lake, 1; Henry, 2; Glen Ellyn, 4; Worth, 1; Joliet, 8; Auburn Park, 1; Olive Branch, 2; Mound City, 3; Grand Chain, 1); Indiana (Kouts, 1; Liverpool, 1; Bluffton, 1); Arkansas (Winslow, 1; Cleburne County, 1); Mississippi (Vicksburg, 2; Holly Springs, 1); Florida (West Jupiter, 1; Key West, 2); Texas (Fort Worth, 2; Giddings, 1); Mexico (Iguala, Guerrero, 5; Teapa, Tabasco, 1; Mérida, Yucatan, 1; Cozumel Island, Yucatan, 1); Honduras (Ruatán Island, 1); Guatemala (Los Amates, Izabal, 4; Salama, Baja Vera Paz, 2; Patulúl, Sololá, 1; Laguna Guatemala, Guatemala Province, 1; Mixco, Guatemala Province, 1; Tiquisate, Escuintla, 1; El Rancho, Zacapa, 2; Mazatenango, 1); Nicaragua (San Rafael del Norte, 2); Costa Rica (Limón, 1).

**\*Passerina amoena (Say). LAZULI BUNTING.**

*Emberiza amoena* Say, in Long, Exped. Rocky Mts., 2, p. 47 (note), 1823—Rocky Mountains, source of the Arkansas = near Canyon City, Colorado (type lost).

*Cyanospiza amoena* Sharpe, Cat. Bds. Brit. Mus., 12, p. 620, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 584, 1901 (monog., full bibliog.).

*Passerina amoena* Grinnell, Univ. Calif. Pub. Zool., 32, p. 186, 1928—Lower California; Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 332, 1929—southern Arizona (breeding); van Rossem, Trans. San Diego Soc. N. H., 6, p. 294, 1931—Sonora (Tecoripa, San Javier, Saric [breeding], Tésia, Chinobampo, Guirocoba); Griscom, Bull. Mus. Comp. Zool., 75, p. 420, 1934—Chilpancingo, Guerrero (winter); van Rossem, l.c., 77, p. 480, 1934—Sonora.

*Range*.—Western North America, from southern British Columbia and Alberta, southeastern Saskatchewan, and northwestern North Dakota south to northwestern Lower California, northern Sonora, and western Texas; winters in Mexico.

32: Montana (Columbia Falls, 1); California (Nicasio, 5; Contra Costa County, 1; Palo Alto, 1; Hayward, 1; Los Gatos, 1; Willow Creek Valley, 2; San José, 1); Colorado (Fort Lyon, 4; unspecified, 2); Arizona (Santa Cruz County, 1; Tucson, 1; Calabasas, 6); Mexico (Iguala, Guerrero, 3).

**\*Passerina versicolor versicolor (Bonaparte). VARIED BUNTING.**

*Spiza versicolor* Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 120, pub. June 14, 1838—near Temascaltepec, Mexico (type in Derby Collection, now in Liverpool Museum); Sclater, l.c., 25, p. 214, 1857—Orizaba, Vera Cruz; idem, l.c., 27, p. 365, 1859—Jalapa, Vera Cruz.

*Carduelis luxuosus* Lesson, Rev. Zool., 2, p. 41, 1839—Mexico (type in coll. of Dr. Abeillé, Bordeaux).

*Cyanospiza versicolor* Baird, Rep. Expl. Surv. R. R. Pacif., 9, p. 503, 1858—Boquilla, Nuevo León; idem, Bds. N. Amer., pl. 56, fig. 2, 1860; Sclater, Proc. Zool. Soc. Lond., 27, p. 379, 1859—Oaxaca; Dugès, La Naturelle, 1, p. 140, 1868—Cuernamaro, Guanajuato; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—near Orizaba, Vera Cruz; Sill, Amer. Nat., 9, p. 665, 1875—Locke, Ingham County, Michigan (adult male, May 15); Allen, Bull. Nutt. Orn. Cl., 2, p. 109, 1877—Fort Brown, Texas; Sennett, Bull. U. S. Geol. & Geog. Surv. Terr., 4, p. 20, 1878—Brownsville, Texas; idem, l.c., 5, p. 393, 1879—Lomita, Texas; Merrill, Proc. U. S. Nat. Mus., 1, p. 128, 1879—Fort Brown, Texas; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 361, 1886—part, Mexico (Boquilla, Nuevo León; Cuernamaro; Temiscaltepec; Orizaba; Jalapa; Oaxaca); Sharpe, Cat. Bds. Brit. Mus., 12, p. 623, 1888—part, spec. b, Orizaba; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 591, 1901—part, southern Texas and eastern Mexico.

*Passerina versicolor* Coues, Bull. Nutt. Orn. Cl., 5, p. 96, 1880 (nomencl.); Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 142, 1886—Chietla and Azatlan, Puebla.

*Passerina versicolor versicolor* Phillips, Auk, 28, p. 89, 1911—Matamoros and Guiaves, Tamaulipas; Griscom and Crosby, Auk, 43, p. 26, 1926—Brownsville, Texas; Griscom, Bull. Mus. Comp. Zool., 75, p. 420, 1934—Chilpancingo, Guerrero (Jan.—March).

**Range.**—Valley of the lower Rio Grande, Texas, south through eastern Mexico to Vera Cruz, in winter west to Sonora (Chinobampo), Jalisco (Bolaños), and Guerrero (Chilpancingo); accidental in Michigan (Locke, Ingham County).

16: Texas (Cameron County, 1); Mexico (San Luis Potosí, 4; Ciudad Victoria, Tamaulipas, 2; "Tamaulipas," 1; Iguala, Guerrero, 7; unspecified, 1).

**\**Passerina versicolor pulchra* Ridgway.<sup>1</sup> BEAUTIFUL BUNTING.**

*Passerina versicolor pulchra* Ridgway, Man. N. Amer. Bds., p. 448, 1887—Miraflores, Lower California (type in U. S. National Museum); Bryant, Proc. Calif. Acad. Sci., (2), 2, p. 305, 1889—Miraflores, Cape San Lucas; Townsend, Bull. Amer. Mus. N. H., 48, p. 21, 1923—Miraflores and San Bernardo Mountain, Lower California; Grinnell, Univ. Calif. Pub. Zool., 32, p. 186, 1928—Cape district of Lower California.

*Cyanospiza versicolor* (not *Spiza versicolor* Bonaparte) Baird, Proc. Acad. Nat. Sci. Phila., 1859, pp. 301, 304—Cape San Lucas; Cooper, Orn. Calif., 1, p. 234, 1870—part, Cape San Lucas; Belding, Proc. U. S. Nat. Mus., 5, "1882," p. 546, 1883—San José del Cabo, Lower California; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 361, 1886—part, Cape San Lucas; Sharpe, Cat. Bds. Brit. Mus., 12, p. 623, 1888—part, Lower California; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 591, 1901—part, southern Lower California.

*Cyanospiza versicolor pulchra* Brewster, Bull. Mus. Comp. Zool., 41, p. 160, 1902—Cape region (crit.).

**Range.**—Cape district of Lower California, Mexico; on migration in Sonora (Chinobampo, March; fide van Rossem).

6: Lower California (El Sauz, 1; San José del Cabo, 2; unspecified, 3).

***Passerina versicolor dickeyae* van Rossem.<sup>2</sup> MRS. DICKEY'S BUNTING.**

<sup>1</sup> *Passerina versicolor pulchra* Ridgway: Similar to *P. v. versicolor*, but smaller, with shorter, paler bill; coloration of males brighter, and females decidedly grayer, especially on under parts and sides of head.

<sup>2</sup> *Passerina versicolor dickeyae* van Rossem: Similar in size to *P. v. pulchra*; females and young males prevaillingly rufescent brown instead of grayish brown (as in *versicolor*) or brownish gray (as in *pulchra*); adult males very similar to *P. v. pulchra*, and distinguishable only in series by the greater extent and brighter hue of the red nuchal patch.

*Passerina versicolor dickeyae* van Rossem, Trans. San Diego Soc. N. H., 7, p. 369, May 31, 1934—Chinobampo, southern Sonora, Mexico (type in coll. of Donald R. Dickey, Pasadena); idem, Bull. Mus. Comp. Zool., 77, p. 480, 1934—Sonora (Alamos, Hacienda de San Rafael, Bravo, Oposura) and Chihuahua (Carmen, La Trompa).

*Cyanospiza versicolor* (not *Spiza versicolor* Bonaparte) Cooper, Orn. Calif., 1, p. 234, 1870—part, Sonora; Lawrence and Grayson, Mem. Bost. Soc. N. H., 2, p. 276, 1874—Mazatlan, Sinaloa, and Tepic, Nayarit; Brewster, Auk, 2, p. 198, 1885—Crittenden, Arizona (female, July 14); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 361, 1886—part, Sinaloa (Mazatlan, Presidio) and Tepic; Sharpe, Cat. Bds. Brit. Mus., 12, p. 623, 1888—part, spec. c-g, Presidio and Mazatlan; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 591, 1901—part, Arizona (Crittenden).

*Cyanospiza versicolor pulchra* (not of Ridgway) Miller, Bull. Amer. Mus. N. H., 21, p. 363, 1905—Escuinapa and Juanna Gomez River, southern Sinaloa; van Rossem, Trans. San Diego Soc. N. H., 6, p. 293, 1931—Sonora (Saric, Tésia, Chinobampo, Guirocoba).

*Range.*—Breeds from north-central Sonora and western Chihuahua south on the Pacific slope of Mexico to Nayarit; casual in southeastern California (Blythe, Riverside County), southern Arizona (Crittenden), and Jalisco (Zapotlan).

**\**Passerina versicolor purpurascens* Griscom.<sup>1</sup> GUATEMALAN BUNTING.**

*Passerina versicolor purpurascens* Griscom, Amer. Mus. Novit., 438, p. 12, Dec. 15, 1930—Progreso, Guatemala (type in coll. of J. Dwight, Jr., now in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 64, p. 366, 1932—Progreso; (?) idem, Bull. Mus. Comp. Zool., 75, p. 420, 1934—Chilpancingo, Guerrero (March), and Cuernavaca, Morelos (breeding).

*Cyanospiza versicolor* (not *Spiza versicolor* Bonaparte) Sclater and Salvin, Ibis, 1859, p. 17—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 361, 1886—part, Guatemala; Sharpe, Cat. Bds. Brit. Mus., 12, p. 623, 1888—part, spec. k, Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 591, 1901—part, Guatemala.

*Passerina versicolor* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 119, 1907—El Rancho, Guatemala.

<sup>1</sup> *Passerina versicolor purpurascens* Griscom: Similar to *P. v. versicolor*, but decidedly smaller; general coloration duller and darker; adult male with purplish-blue area on forecrown more restricted; back darker and less red; throat and chest darker vine-purple. Wing (of adult male), 64.

This form is definitely known only as an inhabitant of the arid Motagua Valley in northern Guatemala. Breeding birds from Morelos (Cuernavaca) are stated by Griscom to approach it very closely in coloration, though not in size. I must confess that the occurrence of *purpurascens* in a region so near the type locality of *versicolor* appears to me extremely unlikely, since specimens from the vicinity of Jalapa, Vera Cruz, to all intent are indistinguishable from others collected in Tamaulipas and on the Rio Grande.

*Range*.—Arid Tropical zone of Guatemala (Motagua Valley); (?)southwestern Mexico (Cuernavaca) and Guerrero (Chilpancingo).  
1: Guatemala (El Rancho, Zacapa, 1).

**\**Passerina rositae* (Lawrence). ROSITA'S BUNTING.**

*Cyanospiza rositae* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 397, Mar., 1874—Tehuantepec [=Cacoprieto], Oaxaca, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 4, p. 20, 1876—Cacoprieto (descr. of female); Salvin, Ibis, 1874, p. 309 (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 362, pl. 25, 1886—Cacoprieto; Sharpe, Cat. Bds. Brit. Mus., 12, p. 621, 1888—Cacoprieto, Tehuantepec; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 590, 1901—Oaxaca (Cacoprieto, Santa Efigenia) and Chiapas (La Trinidad).

*Passerina rositae* Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 403, 1928—Chivelá, Oaxaca.

*Range*.—Pacific slope of southern Mexico, in states of Oaxaca (Cacoprieto, Santa Efigenia, Chivelá) and Chiapas (La Trinidad).  
1: Mexico (Tehuantepec, Oaxaca, 1).

**\**Passerina ciris ciris* (Linnaeus). PAINTED BUNTING.**

*Emberiza ciris* Linnaeus, Syst. Nat., 10th ed., 1, p. 179, 1758—based mainly on "The Painted Finch" of Catesby, Nat. Hist. Carolina, 1, p. 44, pl. 44; Carolina, not nearer than 150 miles from the sea=South Carolina.

*Fringilla mariposa* Scopoli, Ann. I. Hist. Nat., p. 151, 1769—North America (type in coll. of F. Jacquin).

*Loxia papa* P. L. S. Müller, Natursyst., Suppl., p. 152, 1776—based on "Le Pape" Daubenton, Pl. Enl., pl. 159, fig. 2 (=male); Louisiana.

*Cyanospiza ciris* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 365, 1886—North America, in winter south to Chiriquí; Sharpe, Cat. Bds. Brit. Mus., 12, p. 614, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 586, 1901 (monog., full bibliog.).

*Passerina ciris* Carriker, Ann. Carnegie Mus., 6, p. 885, 1910—Costa Rica (Párges, Volcan de Póas, Bolson); Phillips, Auk, 28, p. 89, 1911—Matamoros, San Fernando, and Alta Mira, Tamaulipas; Griscom and Crosby, Auk, 43, p. 26, 1926—Brownsville, Texas.

*Passerina ciris ciris* Barbour, Mem. Nutt. Orn. Cl., 6, p. 130, 1923—Cuba; Griscom, Bull. Amer. Mus. N. H., 64, p. 364, 1932—Guatemala (Finca La Primavera, Quirigua); idem, Bull. Mus. Comp. Zool., 78, p. 381, 1935—Chiriquí, Panama; van Tyne, Univ. Mich. Mus. Zool., Misc. Pub., 27, p. 42, 1935—Flores, Petén, Guatemala.

*Range*.—Breeds in the southeastern United States from southern Kansas, central Arkansas, northern Mississippi, and southeastern North Carolina south to southern Louisiana, Georgia, northern Florida, and eastern Texas; in winter south through Central America to western Panama (Chiriquí).

118: Texas (Fort Worth, 42; Fort Clark, 1; Gainesville, 1); Mississippi (Vicksburg, 2); South Carolina (Frogmore, 4); Georgia (Savannah, 1; Richmond County, 1; Cumberland Island, 1); Florida (New River, 2; Amelia Island, 2; Nassau County, 6; Pilot Town, 1; Jacksonville, 1; Pilot Tower, 2; West Jupiter, 4; Lake Worth, 2; Palm Beach, 1; Puntarasa, 2); Bahama Islands (Great Bahama Island, 8); Mexico (Vera Cruz, 1; Iguala, Guerrero, 1; Yucatan, 3; Cozumel Island, Yucatan, 5; Teapa, Tabasco, 1; San Agustin, 1); Guatemala (Los Amates, Izabal, 1; Izabal, 1; El Rancho, Zacapa, 2; Laguna Guatemala, Guatemala Province, 1; Patulúl, Sololá, 3; Lake Amatitlan, 1; Mazatenango, 1; Tiquisate, Escuintla, 2); Costa Rica (Orósi, 1; Las Cañas, 1); Nicaragua (San Gerónimo, Chinandega, 6); unspecified, 2.

**\**Passerina ciris pallidior* Mearns.<sup>1</sup> WESTERN PAINTED BUNTING.**

*Passerina ciris pallidior* Mearns, Proc. Biol. Soc. Wash., 24, p. 217, Oct. 31, 1911—Fort Clark, Kinney County, Texas (type in U. S. National Museum); Griscom, Bull. Amer. Mus. N. H., 64, p. 365, 1932—Guatemala (Sacapulas, Panajachel, Ocos, Hacienda California, San José); idem, Bull. Mus. Comp. Zool., 77, p. 419, 1934—Coyucá and Acapulco, Guerrero. *Cyanospiza iris* (not *Emberiza ciris* Linnaeus) Bangs, Bull. Mus. Comp. Zool., 39, p. 156, 1903—Ceiba, Honduras (crit.).

*Range*.—Breeds in western Texas and southeastern New Mexico; in winter south to western Mexico (Guerrero), western Guatemala, Honduras (Ceiba), and Costa Rica (Bolson).

3: Texas (Ingram, 3).

**\**Passerina leclancherii leclancherii* Lafresnaye. LECLANCHER'S BUNTING.**

*Passerina leclancherii* Lafresnaye, Rev. Zool., 3, p. 260, 1840—Acapulco, Guerrero, Mexico (type in Paris Museum).

*Passerina* (*Spiza*) *leclancherii* Lafresnaye, Mag. Zool., (2), 3, pl. 22, 1841—Acapulco (fig. of type).

*Cyanospiza leclancheri* Lawrence, Mem. Bost. Soc. N. H., 2, p. 277, 1874—Sierra Madre, Rio de la Armeria, Colima; Salvin, Proc. Zool. Soc. Lond.,

<sup>1</sup> *Passerina ciris pallidior* Mearns: Similar to *P. c. ciris*, but larger; males with under parts paler vermilion red; females more grayish green above and more buffy, less yellowish below. Wing (male), 72–75; tail, 57–62.

This form, though not recognized by the A. O. U. Check List, is admitted on the authority of L. Griscom, who claims it to be readily separable by larger size and paler as well as duller coloration below, particularly of females and immature. Its breeding range remains to be worked out in detail, but may be assumed to comprise, in addition to western Texas, the adjacent districts of New Mexico. Mr. Griscom has examined wintering specimens from Guerrero, western Guatemala, eastern Honduras (Ceiba), and Pacific Costa Rica (Bolson).

A couple from western Texas, that we have seen, are certainly larger and paler than any other individual of the Painted Bunting.

1883, p. 421—Acapulco; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 362, 1886—part, Acapulco, Sierra Madre, and Rio de la Armeria; Sharpe, Cat. Bds. Brit. Mus., 12, p. 622, 1888—part, spec. f, Acapulco; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 589, 1901—part, Guerrero, Colima, and (?)Puebla (Chietla).

(?)*Passerina leclancheri* Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 142, 1886—Chietla, Puebla (December).

*Passerina leclancheri leclancheri* Griscom, Bull. Mus. Comp. Zool., 75, p. 420, 1934—Coyucá and Acapulco, Guerrero.

*Range*.—Southwestern Mexico, in states of Colima (Rio de la Armeria, Manzanillo), Guerrero (Acapulco, Iguala, Coyucá), and (?)Puebla (Chietla).

5: Mexico (Iguala, Guerrero, 5).

**\**Passerina leclancherii grandior* Griscom.<sup>1</sup> OAXACA BUNTING.**

*Passerina leclancheri grandior* Griscom, Bull. Mus. Comp. Zool., 75, p. 420, Jan., 1934—Chivelá, Oaxaca, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Cyanospiza leclancheri* (not *Passerina leclancherii* Lafresnaye) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 551—San Juan del Rio, Oaxaca; Lawrence, Bull. U. S. Nat. Mus., 4, p. 20, 1876—Tapana and Tehuantepec, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 362, 1886—part, Oaxaca (San Juan del Rio, Tapana, Tehuantepec, Cacoprieto); Sharpe, Cat. Bds. Brit. Mus., 12, p. 622, 1888—part, spec. a-e, San Juan del Rio, Tehuantepec, and Cacoprieto; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 589, 1901—part, Oaxaca.

*Passerina leclancheri* Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 403, 1928—Chivelá, Almoloya, Cacoprieto, and Tapanatepec, Oaxaca.

*Range*.—Southwestern Mexico, in State of Oaxaca (San Juan del Rio, Tapana, Tehuantepec, Huilotepec, Cacoprieto, Chivelá, Almoloya, Tapanatepec).

1: Mexico (Tehuantepec, Oaxaca, 1).

**Genus PORPHYROSPIZA Sclater and Salvin**

*Porphyrospiza* Sclater and Salvin, Nomencl. Av. Neotrop., pp. 30, 155, 1873—type, by orig. desig., *Cyanospiza cyanella* Pelzeln (not *Emberiza cyanella* Sparrman).<sup>2</sup>

*Porphyriospiza* Allen, Bull. Amer. Mus. N. H., 3, p. 371, 1891 (emendation).

<sup>1</sup> *Passerina leclancherii grandior* Griscom: Similar in coloration to the nominate race, but somewhat larger. Wing, (male) 67–70, (female) 63–65.

Four specimens examined.

<sup>2</sup> Though the authors followed Pelzeln in misidentifying the Brazilian bird with *Emberiza cyanella* Sparrman, which is unquestionably *Passerina cyanea* (Linnaeus), the diagnosis and the explanatory note (on p. 155) clearly refer to the species obtained by Natterer, now known under Wied's name *caerulescens*, the immature male of which is well characterized in Pelzeln's work.



**\**Porphyrospiza caerulescens* (Wied). BRAZILIAN BLUE FINCH.**

*Tanagra caerulescens* Wied, Beitr. Naturg. Bras., 3, (1), p. 541, 1830—Campos Geraes of inner Brazil=interior of Bahia (descr. of adult male; type in coll. of Prince Wied, now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, pp. 140, 225, 1889).

*Porphyrospiza pulchra* Sharpe, Cat. Bds. Brit. Mus., 12, p. 625, 1888—Nas Furnas, Minas Geraes, and Bahia (descr. of adult male; type in British Museum).

*Cyanospiza cyanella* (not *Emberiza cyanella* Sparrman) Pelzeln, Orn. Bras., 3, p. 227, 1870—Minas Geraes (Nas Furnas), Goyáz (Goyáz City), and Matto Grosso (Rio Bandeira, north of Cuyabá), Brazil (descr. of young male).

*Porphyrospiza caerulescens* Allen, Bull. Amer. Mus. N. H., 2, pp. 140, 225, 1889 (crit.); Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 5, 1900—Urucúm, Matto Grosso; Ihering, Cat. Faun. Braz., 1, p. 382, 1907 (range); Hellmayr, Nov. Zool., 15, p. 35, 1908—Goyáz City; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 82, 1910—Piauhy (Floresta, near Burití, and Santo Antonio de Gilboez); idem, l.c., p. 180, 1925—Piauhy (habits); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 301, 1929—Tranqueira, Maranhão; Naumburg, Bull. Amer. Mus. N. H., 60, p. 357, 1930—Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 253, 1930—Cuevo, Chuquisaca, Bolivia.

*Porphyrospiza caerulescens* Allen, Bull. Amer. Mus. N. H., 3, p. 371, 1891—Chapada, Matto Grosso (plumages).

*Range*.—Campo region in the interior of Brazil, from southern Maranhão and Piauhy south to western Bahia, western Minas Geraes (Nas Furnas), and Matto Grosso, and eastern Bolivia (Cuevo, Dept. Chuquisaca).<sup>1</sup>

7: Brazil (Tranqueira, Maranhão, 5; Chapada, Matto Grosso, 2).

**Genus TIARIS Swainson**

*Tiaris* Swainson, Philos. Mag., (n.s.), 1, No. 6, p. 438, June, 1827—type, by monotypy, *Tiaris pusillus* Swainson.

*Euetheia* Reichenbach, Av. Syst. Nat., pl. 79, June 1, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 82, 1855), *Fringilla lepida* Linnaeus.

*Phonipara* Bonaparte, Consp. Gen. Av., 1, (2), p. 494, end of 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 82, 1855), *Loxia canora* Gmelin.

*Euetheia* Cabanis, Mus. Hein., 1, p. 146, Oct., 1851—emendation of *Euetheia* Reichenbach.

<sup>1</sup> *Additional material examined*.—Piauhy: Floresta (Burití), near Parnaguá, 2; Santo Antonio de Gilboez, 1.—Goyáz: Aldea Maria, 1; Goyáz City, 6.—Minas Geraes: Nas Furnas, 2.—Matto Grosso: Chapada, 4.

\***Tiaris canora** (Gmelin). MELODIOUS GRASSQUIT.

*Loxia canora* Gmelin, Syst. Nat., 1, (2), p. 858, 1789—based on "The Brown-cheeked Grosbeak" Brown, Illust. Zool., p. 56, pl. 24 (= female); "Mexico," errore=Cuba.

*Phonipara canora* Bonaparte, Consp. Gen. Av., 1, (2), p. 494, 1850—"Mexico" and Cuba (descr.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 144, 1888—San Cristóbal, Cuba.

*Pyrrhula collaris* Vigors, Zool. Journ., 3, No. 11, p. 440, Dec., 1827—near Havana, Cuba (location of type unknown).

*Euethia canora* Gundlach and Cabanis, Journ. Orn., 4, p. 7, 1856—Cuba (nest and eggs descr.); Gundlach, l.c., 22, p. 123, 1874—Cuba (habits, nest, and eggs); Chapman, Bull. Amer. Mus. N. H., 4, p. 308, 1892—near Trinidad, Cuba.

*Fringilla (Loxia) canora* Thienemann, Journ. Orn., 5, p. 150, 1857—Cuba (egg descr.).

*Euethia canora* Cory, Auk, 3, p. 209, 1886—Cuba (descr.); Merriam, Auk, 5, p. 322, 1888—Sombrero Key, Florida (April 7, 1888); Cory, Bds. W. Ind., p. 96, 1889—Cuba (descr.); idem, Cat. W. Ind. Bds., p. 113, 1892—Cuba and (?)Isle of Pines; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 536, 1901—Cuba and Sombrero Key, Florida (monog.).

*Tiaris canora* Bangs and Zappey, Amer. Natur., 39, p. 215, 1905—Isle of Pines (occurrence doubtful); Todd, Ann. Carnegie Mus., 10, p. 248, 1910—Isle of Pines (doubtful); Barbour, Mem. Nutt. Orn. Cl., 6, p. 129, 1923—Cuba (local distribution).

*Range*.—Island of Cuba,<sup>1</sup> Greater Antilles; accidental on Sombrero Key, Florida (April 7, 1888).

9: Cuba (unspecified, 9).

\***Tiaris olivacea bryanti** (Ridgway).<sup>2</sup> BRYANT'S GRASSQUIT.

*Euethia bryanti* Ridgway, Auk, 15, p. 322, October, 1898—Porto Rico (type in U. S. National Museum).

*Emberiza olivacea* (not of Linnaeus, 1766) Moritz, Arch. Naturg., 2, (1), p. 381, 1836—Porto Rico.

*Euethia lepida* (not *Fringilla lepida* Linnaeus) Sundevall, Oefvers. Vetensk. Akad. Handl., 26, p. 597, 1869—Porto Rico; Gundlach, Journ. Orn., 22, p. 311, 1874—Porto Rico; idem, Anal. Soc. Esp. Hist. Nat., 7, p. 204, 1878—Porto Rico.

*Euethia lepida* Cory, Cat. W. Ind. Bds., p. 113, 1892—part, Porto Rico.

*Phonipara lepida* Sharpe, Cat. Bds. Brit. Mus., 12, p. 145, 1888—part, spec. r-v, Porto Rico.

*Euethia olivacea* Cory, Auk, 3, p. 208, 1886—part, Porto Rico; idem, Bds. W. Ind., p. 95, 1889—part, Porto Rico.

<sup>1</sup> No authentic record exists for the Isle of Pines.

<sup>2</sup> *Tiaris olivacea bryanti* (Ridgway) is the only fairly marked of the Antillean races, being distinguishable by brighter greenish upper, and more yellow under parts, while its dimensions are slightly smaller.

*Euetheia olivacea bryanti* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 533, 1901—Porto Rico (monog.).

*Tiaris olivacea bryanti* Bowditch, Auk, **20**, p. 14, 1903—Porto Rico and Vieques; Bangs, Bull. Mus. Comp. Zool., **60**, p. 320, 1916—Porto Rico (diag.); Wetmore, Auk, **33**, p. 419, 1916—Vieques; idem, Auk, **34**, p. 62, 1917—Culebra; Struthers, Auk, **40**, p. 478, 1923—Maricao, Porto Rico; Danforth, Journ. Dept. Agric. Porto Rico, **10**, p. 107, 1926—Cartagena Lagoon, Porto Rico; Wetmore, Sci. Surv. Porto Rico & Virgin Islands, **9**, p. 555, 1927—Porto Rico, Vieques, and Culebra (monog.); Danforth, Journ. Dept. Agric. Porto Rico, **15**, p. 104, 1931—Porto Rico; idem, l.c., **19**, p. 472, 1935—Vieques and Culebra.

*Range.* Islands of Porto Rico, Vieques, and Culebra, Greater Antilles.

3: Greater Antilles (Porto Rico, 3).

**\**Tiaris olivacea olivacea* (Linnaeus). YELLOW-FACED GRASSQUIT.**

*Emberiza olivacea* Linnaeus, Syst. Nat., 12th ed., **1**, p. 309, 1766—based on "Le Bruant de S. Domingue" Brisson, Orn., **3**, p. 300, pl. 13, fig. 5; San Domingo (type in Réaumur Collection).

*Fringilla olivacea* Bryant, Proc. Bost. Soc. N. H., **11**, p. 93, 1866—Hispaniola.

*Phonipara olivacea* Sallé, Proc. Zool. Soc. Lond., **25**, p. 232, 1857—Santo Domingo; Selater, Cat. Coll. Amer. Bds., p. 107, 1862—part, spec. d, Santo Domingo; Cory, Bull. Nutt. Orn. Cl., **6**, p. 152, 1881—Haiti; idem, Bds. Haiti and San Dom., p. 65, col. pl., fig. 8, 1884—La Vega.

*Euetheia olivacea* Cory, Auk, **3**, p. 208, 1886—part, Haiti and San Domingo; idem, Bds. W. Ind., p. 95, 1889—part, Haiti.

*Phonipara lepida* (not *Fringilla lepida* Linnaeus) Sharpe, Cat. Bds. Brit. Mus., **12**, p. 145, 1888—part, spec. p, q, Santo Domingo; Tristram, Cat. Coll. Tristr., p. 232, 1889—Rivas; Cory, Cat. W. Ind. Bds., p. 113, 1892—part, Haiti; Cherrie, Field Columb. Mus., Orn. Ser., **1**, p. 16, 1896—Dominican Republic.

*Euetheia olivacea olivacea* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 530, 1901—part, Haiti.

*Tiaris lepida* Verrill, Proc. Acad. Nat. Sci. Phila., **61**, p. 362, 1909—La Vega and El Valle, Dominican Republic.

*Tiaris olivacea olivacea* Bangs, Bull. Mus. Comp. Zool., **60**, p. 319, 1916—Haiti and San Domingo (crit.); Peters, l.c., **61**, p. 425, 1917—Monte Christi, Santiago, Sosúa, and Choco, Dominican Republic (crit.); Bond, Proc. Acad. Nat. Sci. Phila., **80**, p. 518, 1928—Haiti; Danforth, Auk, **46**, p. 374, 1929—Hispaniola and Gonave; Moltoni, Atti Soc. Ital. Sci. Nat., **68**, p. 326, 1929—Haina and San Juan; Wetmore and Swales, Bull. U. S. Nat. Mus., **155**, p. 430, 1931—Hispaniola (monog.); idem, Proc. U. S. Nat. Mus., **81**, art. 2, p. 39, 1932—Haiti (Gonave Island, Grand-Boucan, Petite Cayemite Island, Bug Island, Ile à Vache); idem and Lincoln, l.c., **82**, art. 25, p. 65, 1933—Hispaniola and Ile à Vache.

*Range.*—Island of Hispaniola, Greater Antilles.

73: Dominican Republic (Puerto Plata, 1; Aguacate, 4; Catarey, 2; La Vega, 33; Santo Domingo, 18; Maniel, 8; San Cristóbal, 1); Haiti (Kenshoff, 1; Le Coup, 2; Jacmel, 3).

**\**Tiaris olivacea lepida* (Linnaeus).<sup>1</sup> CUBAN YELLOW-FACED GRASSQUIT.**

*Fringilla lepida* Linnaeus, Syst. Nat., 12th ed., 1, p. 320, 1766—Havana, Cuba (ex Jacquin MS.); Jacquin, Beytr. Gesch. Vögel, p. 7, pl. 2, 1784—Cuba; Thienemann, Journ. Orn., 5, p. 150, 1857—Cuba (eggs descr.).

*Passerina olivacea* (not *Emberiza olivacea* Linnaeus) d'Orbigny, in Sagra, Hist. Ile de Cuba, Orn., p. 104, 1838—Cuba (habits).

*Euethia olivacea* Cory, Auk, 3, p. 208, 1886—part, Cuba; idem, Bds. W. Ind., p. 95, 1889—part, Cuba.

*Euethia lepida* Cabanis, Mus. Hein., 1, p. 146, 1851—Cuba; idem and Gundlach, Journ. Orn., 4, p. 7, 1856—Cuba (descr. of eggs); Gundlach, l.c., 22, p. 122, 1874—Cuba (ecology); Chapman, Bull. Amer. Mus. N. H., 4, p. 309, 1892—near Trinidad, Cuba.

*Euethia lepida* Cory, Auk, 8, p. 294, 1891—Cuba; idem, Cat. W. Ind. Bds., p. 115, 1892—part, Cuba and Isle of Pines.

*Phonipara lepida* Sharpe, Cat. Bds. Brit. Mus., 12, p. 145, 1888—part, spec. k-o, San Cristóbal, Cuba.

*Euethia olivacea olivacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 531, 1901—part, Cuba.

*Tiaris olivacea lepida* Bangs, Bull. Mus. Comp. Zool., 60, p. 319, 1916—Cuba and Isle of Pines (crit.).

*Tiaris olivacea olivacea* Bangs and Zappey, Amer. Natur., 39, p. 214, 1905—Santa Fé and Callebonita, Isle of Pines; Todd, Ann. Carnegie Mus., 10, p. 283, 1910—Bibijagua, Los Indios, Nueva Gerona, and Caleta Grande, Isle of Pines (crit.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 128, 1923—Cuba; Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 39, 1932—part, near Gibara, Cuba.

*Range.*—Island of Cuba, including Isle of Pines, Greater Antilles.

8: Cuba (Casilda, Santa Clara, 4; Holguin, 1; La Vega, Isle of Pines, 1; unspecified, 2).

**\**Tiaris olivacea coryi* Ridgway. JAMAICAN YELLOW-FACED GRASSQUIT.**

(?) *Spermophila adoza* Gosse, Bds. Jam., p. 253, 1847—Grand Vale, Jamaica (type in British Museum); idem, Illust. Bds. Jam., pl. 65, 1849.<sup>2</sup>

<sup>1</sup> *Tiaris olivacea lepida* (Linnaeus) was tentatively separated by Bangs, who had very large series before him, on account of generally darker coloration of the upper parts and flanks. I do not see much practical advantage in recognizing this and the next form, as many examples are absolutely indistinguishable.

<sup>2</sup> According to Mr. N. B. Kinnear (in litt.), the type is not certainly identifiable, being much browner than any juvenile specimen of the two Jamaican grassquits.

*Euetheia coryi* Ridgway, Auk, 15, p. 322, Oct., 1898—Cayman Brac (type in Field Museum).

*Spermophila olivacea* (not *Emberiza olivacea* Linnaeus) Gosse, Bds. Jamaica, p. 249, 1847—Jamaica (habits).

*Phonipara olivacea* Sclater, Cat. Coll. Amer. Bds., p. 107, 1862—part, spec. a-c, Jamaica; March, Proc. Acad. Nat. Sci. Phila., 1863, p. 297—Jamaica (nest and eggs descr.).

*Euetheia olivacea* Cory, Auk, 3, p. 208, 1886—part, Jamaica; idem, Auk, 3, p. 502, 1886—Grand Cayman; Ridgway, Proc. U. S. Nat. Mus., 10, p. 574, 1887—Grand Cayman; Cory, Auk, 6, p. 31, 1889—Little Cayman and Cayman Brac; idem, Bds. W. Ind., p. 95, 1889—part, Jamaica; Scott, Auk, 10, p. 179, 1893—Jamaica.

*Phonipara lepida* (not *Fringilla lepida* Linnaeus) Sharpe, Cat. Bds. Brit. Mus., 12, p. 145, 1888—part, spec. a-i, Jamaica (Kingston, Moneague).

*Euetheia lepida* Cory, Cat. W. Ind. Bds., p. 113, 1892—Cayman Islands and Jamaica.

*Euetheia olivacea olivacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 530, 1901—part, Grand Cayman, Little Cayman, and Jamaica.

*Euetheia olivacea coryi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 532, 1901—Cayman Brac.

*Euetheia olivacea* Nicoll, Ibis, 1904, p. 581—Grand Cayman; Lowe, Ibis, 1911, p. 159—Grand Cayman and Little Cayman.

*Euetheia olivacea coryi* Lowe, Ibis, 1911, p. 160—Cayman Brac.

*Tiaris olivacea olivacea* Bangs, Bull. Mus. Comp. Zool., 60, p. 318, 1916—Grand Cayman and Cayman Brac (crit.); Danforth, Auk, 45, p. 490, 1928—Lumsden, Jamaica.

*Tiaris olivacea adoxxa* Bangs, Bull. Mus. Comp. Zool., 60, p. 319, 1916—Jamaica and Cayman Islands (crit.).

**Range.**—Island of Jamaica and the Cayman Islands, Greater Antilles.<sup>1</sup>

56: Greater Antilles (Grand Cayman, 21; Little Cayman, 3; Cayman Brac, 12; Jamaica, 20).

**\**Tiaris olivacea intermedia* (Ridgway). COZUMEL GRASSQUIT.**

*Euetheia olivacea intermedia* Ridgway, Proc. Biol. Soc. Wash., 3, p. 22, 1885—Cozumel Island, Mexico (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 8, p. 568, 1885—Cozumel (full descr.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 533, 1901—Cozumel and Holbox (monog.); Griscom, Amer. Mus. Novit., 236, p. 12, 1926—Cozumel.

*Phonipara pusilla* (not *Tiaris pusilla* Swainson) Salvin, Ibis, 1885, p. 190—Cozumel.

*Phonipara intermedia* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 360, 1885—Cozumel; Salvin, Ibis, 1888, p. 261—Cozumel and Holbox.

<sup>1</sup> Cayman Islands birds are not separable from those of Jamaica, and differ hardly from Cuban specimens. *E. coryi* was based on individuals from Cayman Brac discolored by Maynard's "dermal preservative."

[*Phonipara lepida*] subsp.  $\alpha$  *Phonipara pusilla* Sharpe, Cat. Bds. Brit. Mus., 12, p. 147, 1888—part,  $\alpha$  *P. intermedia*, Cozumel and "Jolbox" [= Holbox].  
*Range*.—Islands of Cozumel and Holbox, off Yucatan, Mexico.  
 3: Mexico (Cozumel Island, Yucatan, 3).

**\**Tiaris olivacea pusilla* Swainson. MEXICAN GRASSQUIT.**

*Tiaris pusillus* Swainson, Philos. Mag., (n.s.), 1, No. 6, p. 438, June, 1827—Temascaltepec and Real del Monte, Mexico (type in coll. of W. Bullock, actually probably in the Swainson Collection, University Museum, Cambridge, Eng.).

*Tiaris olivacea dissila* Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 223, Jan., 1906—savanna of Panama, Panama (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 371, 1930).

*Phonipara pusilla* Sclater, Proc. Zool. Soc. Lond., 23, p. 159, 1855—Bogotá (crit.); idem, l.c., 24, p. 304, 1856—Córdoba, Vera Cruz; idem, l.c., 27, pp. 365, 379, 1859—Jalapa, Vera Cruz, and Totontepec, Oaxaca; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 298, 1861—Panama Railroad; Sclater, Cat. Coll. Amer. Bds., p. 107, 1862—Bogotá and Orizaba; Sclater, Proc. Zool. Soc. Lond., 1864, p. 174—City of Mexico; Sclater and Salvin, l.c., 1864, p. 352—Lion Hill, Panama; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 169—San José, Costa Rica; Salvin, Ibis, 1866, p. 193—Petén, Guatemala; idem, Proc. Zool. Soc. Lond., 1867, p. 142—Santa Fé, Veraguas; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—San José and Sachí, Costa Rica; idem, l.c., 9, p. 201, 1869—Mérida, Yucatan; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 552, 1869—Valley of Orizaba, Vera Cruz, Mexico; Salvin, Proc. Zool. Soc. Lond., 1870, p. 190—Chitrá, Veraguas; Wyatt, Ibis, 1871, p. 328—Bucaramanga, Colombia; Lawrence, Bull. U. S. Nat. Mus., 4, p. 20, 1876—Dondominguillo, Oaxaca; Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 237—San Cristóbal, Táchira, Venezuela; Boucard, l.c., 1878, p. 58—San José, Costa Rica; Sclater and Salvin, l.c., 1879, p. 507—Retiro, Santa Elena, and Medellín, Colombia (eggs descr.); Boucard, l.c., 1883, p. 444—Yucatan; Ridgway, Proc. U. S. Nat. Mus., 5, pp. 495, 499, 1883—Volcan de Irazú and San José, Costa Rica; Berlepsch, Journ. Orn., 32, p. 295, 1884—Bucaramanga, Colombia (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 359, 1885—Mexico to Colombia.

*Tiaris olivaceus* (not *Emberiza olivacea* Linnaeus) Cassin, Proc. Acad. Nat. Sci. Phila., 4, p. 91, 1848—near Jalapa, Mexico.

[*Phonipara lepida*] subsp.  $\alpha$  *Phonipara pusilla* Sharpe, Cat. Bds. Brit. Mus., 12, p. 147, 1888—part, spec. a-r, Mexico (Jalapa, Orizaba, Yucatan), Guatemala (Sakluk, Petén), Costa Rica (San José, Turrialba, Sachí), Panama (Chitrá, Santa Fé, Lion Hill, Paraiso Station), and Colombia (Bogotá, Medellín).

*Euetheia pusilla* Cabanis, Journ. Orn., 9, p. 1, 1861—Costa Rica; Piguet, Mém. Soc. Neu. Sci. Nat., 5, p. 808, 1914—La Camelia (Angelópolis), Colombia.

*Euetheia pusilla* Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 142, 1886—Jalapa, Vera Cruz; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—

Alajuela, Costa Rica; Cherrie, Auk, 9, p. 247, 1892—Costa Rica (range); Cox, Auk, 12, p. 357, 1895—near Orizaba City, Vera Cruz; Bangs, Proc. New Eng. Zool. Cl., 2, p. 33, 1900—Loma del León, Panama.

*Eueltheia olivacea pusilla* Richmond, Proc. U. S. Nat. Mus., 18, p. 630, 1896—Alta Mira, Tamaulipas, Mexico; Chapman, Bull. Amer. Mus. N. H., 10, p. 29, 1898—Jalapa, Vera Cruz; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 534, 1901 (monog.); Griscom, Amer. Mus. Novit., 235, p. 16, 1926—Palmul, Yucatan.

*Tiaris pusilla* Bangs, Proc. New Engl. Zool. Cl., 3, p. 69, 1902—Boquete, Chiriquí.

*Tiaris olivacea pusilla* Carriker, Ann. Carnegie Mus., 6, p. 891, 1910—Costa Rica (Guayábo, Bonilla, San José, Alajuela, Juan Viñas, Cachí, Guápiles, Guaitil, San Pedro de San José, Los Cuadros de Irazú); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 281, 1910—Turrialba Station, Guayábo, and Coliblanco, Costa Rica; Chapman, Bull. Amer. Mus. N. H., 36, p. 560, 1917—Colombia (Dabeiba, La Frijolera, Caldas, Las Lomitas, San Antonio, Ricaurte, Rio Frio, Miraflores, Santa Elena, Salento, Barro Blanco, Rio Toché, San Agustín, La Palma, below Andalucia, El Consuelo, Subia); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 275, 1918—Gatun, Panama; Griscom, Bull. Amer. Mus. N. H., 64, p. 351, 1932—Guatemala (Finca Concepción, Secanquim, Finca Sepacuite); idem, Bull. Mus. Comp. Zool., 78, p. 379, 1935—Panama (Chiriquí to Canal Zone); van Tyne, Univ. Mich. Mus. Zool., Misc. Pub., 27, p. 40, 1935—Macaniché and La Libertad, Petén, Guatemala.

*Eueltheia olivacea pusilla* Hallinan, Auk, 41, p. 321, 1924—near Corosal, Panama; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 340, 1932—San Juancito and Cantarranas, Honduras.

**Range.**—Tropical zone of eastern Mexico (from southern Tamaulipas through Vera Cruz to Oaxaca and Yucatan), eastern Guatemala (Coban and Petén districts), Honduras (San Juancito, Cantarranas), Costa Rica, Panama, Colombia (except Santa Marta region), and extreme western Venezuela (Táchira).<sup>1</sup>

31: Mexico (Tampico, Tamaulipas, 5); Costa Rica (Turrialba Station, 2; Guayábo, 3; Coliblanco, 5; Matina, 3; San José, 4; Volcan de Irazú, Cartago, 1); Panama (Boquete, 1); Colombia (Andalucia, Huila, 1; "Bogotá," 2); Venezuela (Páramo de Tamá, 1; Colón, Táchira, 3).

**\*Tiaris bicolor bicolor** (Linnaeus). BAHAMA GRASSQUIT.

*Fringilla zena* (not of Linnaeus, p. 181) Linnaeus, Syst. Nat., 10th ed., 1, p. 183, 1758—based on "The Bahama Sparrow" Catesby, Nat. Hist. Caro-

<sup>1</sup> Specimens from Panama and Colombia frequently have the crown and auriculars olive green, thus closely resembling *T. o. intermedia*, but others with black top and sides of the head and a greater amount of black on the chest are not distinguishable from Mexican birds. While I cannot satisfactorily explain this variation, which to a certain degree seems to be geographical, the recognition of a southern form (*dissila*) is hardly justifiable.

Fifty-nine specimens examined.

lina, 1, p. 37, pl. 37; Bahama Islands; Bryant, Proc. Bost. Soc. N. H., 10, p. 254, 1865—Bahamas.

*Fringilla bicolor* Linnaeus, Syst. Nat., 12th ed., 1, p. 324, 1766—based on "The Bahama Sparrow" Catesby, Nat. Hist. Carolina, 1, p. 37, pl. 37; Bahama Islands.

*Spermophila bicolor* Bryant, Proc. Bost. Soc. N. H., 7, p. 119, 1859—New Providence, Bahamas.

*Phonipara zena* Maynard, Bds. East. N. Amer., p. 87, pl. 2, 1881—Miami, Florida (Jan. 19, 1871).

*Phonipara bicolor* Cory, Bds. Bahamas, p. 91, 1880—Bahamas; Sharpe, Cat. Bds. Brit. Mus., 12, p. 149, 1888—part, spec. d-g, Inagua, Bahamas.

*Euethia bicolor* Stejneger, Auk, 2, p. 48, 1885 (nomencl.); Cory, Auk, 3, p. 209, 1886—part, Bahamas; idem, Bds. W. Ind., p. 96, 1889—part, Bahamas; Northrop, Auk, 8, p. 71, 1891—Andros (habits); Cory, Auk, 8, pp. 294, 295, 296, 297, 298, 351, 1891—Bahamas (New Providence, Caicos Island, Inagua, Abaco, Berry Islands, Bimini Islands, Eleuthera); Ridgway, Auk, 8, pp. 334–339, 1891—Abaco, New Providence, Eleuthera, Cat Island, Watlings Island, Rum Cay, Green Cay, and Concepción Island; Cory, Cat. W. Ind. Bds., pp. 113, 150, 1892—part, Bahamas; idem, Auk, 9, p. 48, 1892—Mariguana and Watlings Island; Bonhote, Ibis, 1899, p. 512—Nassau, New Providence; Bangs, Auk, 17, p. 293, 1900—Nassau.

*Euethia bicolor* Bonhote, Ibis, 1903, p. 289—Nassau (eggs descr.).

*Euethia bicolor bicolor* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 537, 1901—Bahamas (monog.).

*Tiaris bicolor* Allen, Auk, 22, p. 128, 1905—Nassau and Little Abaco (habits); Riley, Auk, 22, p. 360, 1905—New Providence, Eleuthera, Cat Island, Watlings Island, Long Island, and Abaco; idem, in Shattuck, The Bahama Islands, pp. 356, 367, 1905—Great Bahamas, Abaco, Biminis, Berry Islands, Eleuthera, New Providence, Andros, Green Cay, Cat Island, Great Exuma, Concepción Island, Watlings Island, Rum Cay, Long Island, Crooked Island, Fortune Island, Acklin, Mariguana, Caicos Islands, Little Inagua, and Great Inagua.

*Tiaris bicolor bicolor* Todd and Worthington, Ann. Carnegie Mus., 7, pp. 442, 464, 1911—New Providence, Great Inagua, Watlings Island, Andros, and Abaco.

*Range.*—Bahama Islands; accidental at Miami, Florida (Jan. 19, 1871).

94: Abaco, 4; Bimini, 3; Berry, 3; Eleuthera, 3; Andros, 33; New Providence (Nassau), 9; Great Bahama, 8; Watlings, 8; Mariguana, 1; Caicos, 6; Inagua, 16.

**\**Tiaris bicolor marchii* (Baird). MARCH'S GRASSQUIT.**

*Spermophila bicolor* (not *Fringilla bicolor* Linnaeus) Gosse, Bds. Jam., p. 252, 1847—Jamaica; idem, Illust. Bds. Jam., pl. 64, 1849.

*Phonipara marchii* Baird, Proc. Acad. Nat. Sci. Phila., 1863, p. 297—Jamaica (new name for *Spermophila bicolor* Gosse).



*Phonipara bicolor* Sclater, Cat. Coll. Amer. Bds., p. 106, 1862—part, spec. a, Jamaica; Cory, Bull. Nutt. Orn. Cl., 6, p. 152, 1881—Haiti; Tristram, Ibis, 1884, p. 168—Santo Domingo.

*Fringilla zena* (var. *marchii*) Bryant, Proc. Bost. Soc. N. H., 11, p. 93, 1866—Port-au-Prince, Haiti.

*Euetheia bicolor* Cory, Auk, 3, p. 209, 1886—part, Jamaica and Haiti; idem, Bds. W. Ind., p. 96, 1889—part, Jamaica and Haiti; idem, Cat. W. Ind. Bds., pp. 113, 150, 1892—part, Jamaica and Haiti; Scott, Auk, 10, p. 179, 1893—Stony Hill and Priestman's River, Jamaica; Field, Auk, 11, p. 126, 1894—Port Henderson, Jamaica; Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 16, 1896—Dominican Republic.

*Phonipara zena* (not *Fringilla zena* Linnaeus) Cory, Bds. Haiti & San Dom., p. 63, col. pl., fig. 7, 1884—Samaná, Dominican Republic; Christy, Ibis, 1897, p. 324—Dominican Republic (nest and eggs descr.).

[*Phonipara bicolor*] subsp. *a* *Phonipara marchii* Sharpe, Cat. Bds. Brit. Mus., 12, p. 150, 1888—part, spec. b–n, Jamaica (Spanishtown, St. Andrews) and Santo Domingo (Samaná).

*Tiaris bicolor* Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 362, 1909—Dominican Republic.

*Euetheia marchi* Hartert, Ibis, 1893, p. 316—Jamaica and San Domingo (crit.).

*Euetheia bicolor marchii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 541, 1901—part, Jamaica and Haiti (monog.).

*Tiaris bicolor marchi* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 518, 1928—Haiti, Gonave, and Tortuga; Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 326, 1929—San Juan, Haiti.

*Tiaris bicolor marchii* Danforth, Auk, 45, p. 490, 1928—Jamaica; idem, Auk, 46, p. 374, 1929—Santo Domingo City and Gonave; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 432, 1931—Hispaniola (monog.); Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 39, 1932—Ile à Vache, Haiti; idem and Lincoln, l.c., 82, art. 25, p. 66, 1933—Haiti.

*Range.*—Islands of Jamaica and Hispaniola, including Gonave, Tortue, and Ile à Vache, Greater Antilles.

76: Jamaica, 1; Haiti (Jacmel, 1; Le Coup, 3; Kenskoff, 3); Dominican Republic (Puerto Plata, 3; Aguacate, 4; Catarey, 14; Honduras, 6; Maniel, 6; Santo Domingo, 23; San Cristóbal, 6; Samaná, 6).

**\**Tiaris bicolor omissa* Jardine. CARIB GRASSQUIT.**

*Tiaris omissa* Jardine, Ann. Mag. Nat. Hist., 20, p. 332, 1847—Tobago (type in coll. of Sir W. Jardine, present location unknown).<sup>1</sup>

*Fringilla zena* var. *portoricensis* Bryant, Proc. Bost. Soc. N. H., 10, p. 254, 1866—Porto Rico (type in U. S. National Museum).

<sup>1</sup> Two cotypes of John Kirk's collecting are in the Sclater Collection, British Museum.

- Tiaris bicolor expectata* Noble, Bull. Mus. Comp. Zool., 60, p. 385, August, 1916—St. George, Grenada (type in Museum of Comparative Zoology, Cambridge, Mass.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 544, 1928—Barbados and St. Vincent.
- Phonipara bicolor* (not *Fringilla bicolor* Linnaeus) Newton, Ibis, 1859, p. 147, pl. 12, fig. 2 (egg)—St. Croix (habits, nest, and eggs); Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 376—St. Thomas; Sclater, Cat. Coll. Amer. Bds., p. 106, 1862—part, spec. b, c, St. Croix; Sundevall, Oefv. Vetensk.-Akad. Handl., 26, pp. 583, 596, 1869—St. Bartholomew and Porto Rico (crit.); Sclater, Proc. Zool. Soc. Lond., 1874, p. 175—Barbados; idem, l.c., 1876, p. 14—Santa Lucia; Lawrence, Proc. U. S. Nat. Mus., 1, pp. 58, 191, 233, 239, 270, 1878—Dominica, St. Vincent, Antigua, Barbuda, and Grenada (descr. of nest and eggs); idem, l.c., pp. 355, 457, 1879—Martinique and Guadeloupe; Sclater, Proc. Zool. Soc. Lond., 1879, p. 765—Montserrat; Lister, 1880, p. 41—St. Vincent; Allen, Bull. Nutt. Orn. Cl., 5, p. 166, 1880—Santa Lucia; Berlepsch, Journ. Orn., 32, p. 295, 1884—Bucaramanga, Colombia; Sharpe, Cat. Bds. Brit. Mus., 12, p. 149, 1888—part, spec. b, c, h-n, Montserrat, Dominica, Tobago, Venezuela (Carúpano, Caracas), and Colombia (Bogotá); Sclater, Proc. Zool. Soc. Lond., 1889, p. 395—Santa Lucia; idem, l.c., 1892, p. 499—Anguilla; Dalmás, Mém. Soc. Zool. France, 13, p. 138, 1900—Tobago.
- Euelthia bicolor* Gundlach, Journ. Orn., 22, p. 312, 1874—Porto Rico; idem, l.c., 26, pp. 160, 173, 1874—Porto Rico; idem, Anal. Soc. Esp. Hist. Nat., 7, p. 205, 1874—Porto Rico (habits); Wells, Proc. U. S. Nat. Mus., 9, p. 614, 1886—Grenada (habits); Nicoll, Ibis, 1904, pp. 557, 561, 566–569, 572, 573, 576—Barbados, Santa Lucia, Grenada, Martinique, Dominica, Montserrat, St. Kitts, and St. Thomas.
- Eueltheia bicolor* Cory, Ibis, 1886, pp. 472–474—Barbados, St. Vincent, Marie Galante, and La Desirade; idem, Auk, 3, p. 209, 1886—part, Porto Rico and Antilles; idem, Auk, 4, p. 96, 1887—Martinique; idem, Bds. W. Ind., p. 96, 1889—part, Porto Rico and Antilles; idem, Auk, 7, pp. 374, 375, 1890—St. Thomas, Anegada, and Virgin Gorda; Ridgway, Proc. U. S. Nat. Mus., 12, p. 130, 1890—Santa Lucia; Cory, Auk, 8, pp. 46–49, 1891—Anguilla, Antigua, St. Eustatius, St. Croix, St. Christopher, and Guadeloupe; idem, Cat. W. Ind. Bds., pp. 113, 150, 1892—part, “Cuba” (errore) and Porto Rico to Barbados; Allen, Bull. Amer. Mus. N. H., 4, p. 52, 1892—Carúpano, Venezuela; Verrill, Trans. Conn. Acad. Sci., 8, p. 338, 1892—Dominica (eggs descr.); Hartert, Ibis, 1893, p. 316—Dominica (eggs descr.); Hartert, Ibis, 1893, p. 316—part, Lesser Antilles; Cory, Auk, 10, p. 220, 1893—Tobago.
- Eutheia bicolor* Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—Ibagüé, Colombia.
- Tiaris bicolor* Wells, Auk, 19, p. 347, 1902—Carriacou, Grenadines (habits).
- Phonipara omissa* Sclater, Cat. Coll. Amer. Bds., p. 106, 1862—Antilles and Tobago; Taylor, Ibis, 1864, p. 167—Martinique, Dominica, and Porto Rico; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Carúpano (near Cumaná) and Caracas, Venezuela.

*Euetheia omissa* Hartert, Ibis, 1893, p. 317—Venezuela to Tobago and Colombia (crit.); Robinson and Richmond, Proc. U. S. Nat. Mus., 18, pp. 677, 685, 1896—Margarita Island and La Guayra, Venezuela; Phelps, Auk, 14, pp. 359, 364, 1897—Cumaná, Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 175, 1901—La Guayra, Venezuela.

*Phonipara zena* (not *Fringilla zena* Linnaeus) Ridgway, Proc. U. S. Nat. Mus., 7, p. 172, 1884—St. Thomas.

[*Phonipara bicolor*] subsp. *a* *Phonipara marchii* (not of Baird) Sharpe, Cat. Bds. Brit. Mus., 12, p. 150, 1888—part, spec. o-t, St. Thomas, Santa Lucia, St. Croix, and Barbados.

*Euethia bicolor marchii* Lowe, Ibis, 1909, pp. 307, 310—Barbados and St. Vincent.

*Euetheia bicolor omissa* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 538, 1901 (monog.); Clark, Auk, 19, p. 266, 1902—Margarita Island; Lowe, Ibis, 1907, p. 567—Margarita Island (crit.); idem, Ibis, 1909, p. 323—Cariaco Peninsula, Venezuela.

*Tiaris bicolor omissa* Bowdish, Auk, 20, p. 14, 1903—Porto Rico; Riley, Smiths. Misc. Coll., 47, p. 291, 1904—Barbuda and Antigua; Clark, Proc. Bost. Soc. N. H., 32, pp. 286, 303, 304, 306, 1905—Barbados, St. Vincent, Grenadines, and Grenada; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 248, 254, 1909—Margarita Island; Noble, Bull. Mus. Comp. Zool., 60, p. 385, 1916—Goyave, Guadeloupe; Wetmore, Bull. U. S. Dept. Agric., 326, p. 125, 1916—Porto Rico (habits, food); idem, Auk, 33, p. 419, 1916—Vieques; idem, Auk, 34, pp. 55, 62, 1917—Culebrita and Culebra; Chapman, Bull. Amer. Mus. N. H., 36, p. 560, 1917—Honda and Chicoral, Magdalena Valley, Colombia (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 518, 1922—Rio Hacha, La Goajira, Colombia (crit.); Struthers, Auk, 40, p. 478, 1923—Porto Rico; Danforth, Journ. Dept. Agric. Porto Rico, 10, p. 106, 1926—Cartagena Lagoon, Porto Rico; Wetmore, Sci. Surv. Porto Rico & Virgin Islands, 9, p. 552, 1927—Porto Rico and Virgin Islands (monog.); Peters, Auk, 44, p. 538, 1927—Anguilla; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 544, 1928—Dominica and Santa Lucia; Danforth, Auk, 47, p. 47, 1930—St. Martin and St. Eustatius; idem, Journ. Dept. Agric. Porto Rico, 14, p. 132, 1930—St. Croix, St. Thomas, St. Jan, Tortola, Salt Island, and Virgin Gorda; Beatty, l.c., p. 149, 1930—St. Croix (nest and eggs); Beatty, l.c., 15, p. 31, 1931—Guanica Lagoon, Porto Rico; Danforth, l.c., p. 103, 1931—Porto Rico; idem, Auk, 51, p. 364, 1934—Antigua; idem, Journ. Agric. Univ. Puerto Rico, 19, p. 463, 1935—Culebra, Louis Peña, Culebrita, Cayo Norte, Jost van Dyke, Tortola, and Beef Island, Virgin Islands; idem, l.c., p. 482, 1935—Barbuda; idem, Monog. Univ. Puerto Rico, Ser. B, No. 3, p. 105, 1935—Santa Lucia.

*Range.*—The Antillean chain from Porto Rico to Barbados and Grenada; Tobago;<sup>1</sup> northern Venezuela (coast region from the

<sup>1</sup> Not found in Trinidad. P. R. Lowe (Ibis, 1907, p. 563, in text) incidentally mentions specimens from that island, but upon my inquiries for more details this gentleman writes that he can find no trace of any examples in his catalogue nor does he remember shooting or seeing any there, and adds, "I must confess I have not the least idea how I came to make such a statement."

Cariaco Peninsula to the Maracaibo region and Mérida); eastern Colombia (La Goajira Peninsula and Magdalena Valley).<sup>1</sup>

131: "Cuba," 1;<sup>2</sup> Porto Rico, 7; St. Croix, 6; Virgin Gorda, 3; St. Thomas, 3; Anegada, 4; Anguilla, 1; St. Bartholomew, 3; St. Eustatius, 3; St. Kitts, 12; Antigua, 2; Guadeloupe, 11; Desirade, 2; Marie Galante, 2; Martinique, 5; Santa Lucia, 9; St. Vincent, 2; Barbados, 3; Grenada, 3; Tobago, 2; Venezuela (Porlamar, Margarita Island, 15; Margarita Island, 5; Caracas, 13; Macuto, Caracas, 6; Puerto Cabello, 1; Rio Aurare, 2; Cocollar, Sucre, 5).

**\**Tiaris bicolor johnstonei* (Lowe).<sup>3</sup> JOHNSTONE'S GRASSQUIT.**

*Euethia johnstonei* Lowe, Bull. Brit. Orn. Cl., 19, p. 6, Oct. 29, 1906—Blanquilla Island, southern Caribbean Sea (type in coll. of P. R. Lowe, now in British Museum).

*Euethia johnstonii* Lowe, Ibis, 1907, p. 120—Blanquilla Island (crit.).

*Euethia bicolor johnstonii* Lowe, Ibis, 1909, p. 328—Los Hermanos (crit.).

*Tiaris johnstonei* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 225, 228, 254, 1909—Blanquilla and Los Hermanos Islands.

**Range.**—Islands of Blanquilla and Los Hermanos, southern Caribbean Sea.

6: Blanquilla, 5; Los Hermanos, 1.

<sup>1</sup> Upon comparing large series from various islands of the Antilles, Tobago, and northern Venezuela, I am quite unable to find any justification for further subdivision of this form. Birds from Grenada and St. Vincent (*expectata* Noble), which are supposed to have shorter tails and more white along the abdominal line, do not differ in any way from Tobago specimens (topotypical *omissa*), with which the inhabitants of Margarita and the Venezuelan coast are to all intent identical. Males from Tobago measure: wing, 50–54; tail, 38–42; those from Grenada and St. Vincent, wing, 48–52; tail, 36–40. There is just a faint possibility that the birds from the northern Lesser Antilles, the Virgin Islands, and Porto Rico may be slightly different, since the males of these islands appear to become very rarely as black below as is the rule in the southern part of the range.

**Additional material examined.**—Venezuela: Cumaná, 14; Carúpano, 3; San Esteban, Carabobo, 2; Mérida, 2.—Colombia: Bucaramanga, 6; "Bogotá," 6.—Tobago: Waterloo, 1; Castare, 5; Mondland, 1; unspecified, 5.—Grenada, 6; St. Vincent, 3; Barbuda, 2.

<sup>2</sup> This specimen, which was presented by Gundlach to Cory, agrees with others from Porto Rico. Its Cuban origin is uncertain (cf. Noble, Bull. Mus. Comp. Zool., 60, p. 386, 1916).

<sup>3</sup> *Tiaris bicolor johnstonei* (Lowe): Very close to *T. b. omissa*, but with blacker bill, the mandible being mostly just as dark as the maxilla (much as in *T. b. grandior*); under parts of adult males nearly uniform black from chin to under tail coverts, the latter without any, or with mere traces of, whitish apical fringes, and only the inner flanks slightly shaded with grayish olive; under wing coverts blacker; females paler, less olivaceous above and more grayish, less buffy underneath. Wing, 53–56, (female) 52–54; tail, 38–40, (female) 37–40.

I do not find any constant differences in the tone of the dorsal surface or in the extent of the blackish color on the hindneck between *johnstonei* and *omissa*. The male from Los Hermanos agrees well with those from Blanquilla.

Four additional specimens from Blanquilla examined.

**\**Tiaris bicolor grandior* (Cory).<sup>1</sup> OLD PROVIDENCE GRASSQUIT.**

*Euethia grandior* Cory, Auk, 4, p. 245, July, 1887—Old Providence, Caribbean Sea (type in coll. of C. B. Cory, now in Field Museum).

*Euethia grandior* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 543, 1901—Old Providence and St. Andrews (monog.).

*Euethia bicolor* (not *Fringilla bicolor* Linnaeus) Cory, Auk, 4, p. 181, 1887—St. Andrews.

*Tiaris grandior* Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 23, 1931—Old Providence and St. Andrews.

*Range.*—Old Providence and St. Andrews, Caribbean Sea.

12: Old Providence, 8; St. Andrews, 4.

**\**Tiaris bicolor sharpei* (Hartert).<sup>2</sup> CURACAO GRASSQUIT.**

*Euethia sharpei* Hartert, Bull. Brit. Orn. Cl., 7, p. xxxvii, Mar. 28, 1893—Bonaire, Curaçao, and Aruba (type, from Curaçao, in Tring Collection, now in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 26, p. 154, 1919); idem, Ibis, 1893, pp. 295, 314, 315, 328—Aruba, Curaçao, and Bonaire (crit., descr. of nest and eggs).

*Euethia bicolor* (not *Fringilla bicolor* Linnaeus) Berlepsch, Journ. Orn., 40, p. 81, 1892—Curaçao (crit.); Robinson, Flying Trip to Tropics, p. 165, 1895—Curaçao.

*Euethia bicolor sharpei* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 543, 1901 (monog.); Hartert, Nov. Zool., 9, p. 299, 1902—Aruba, Curaçao, and Bonaire.

*Tiaris sharpei* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 201, 208, 213, 254, 1909—Aruba, Curaçao, and Bonaire.

*Range.*—Islands of Aruba, Curaçao, and Bonaire, southern Caribbean Sea.

45: Aruba, 16; Curaçao, 20; Bonaire, 9.

**\**Tiaris bicolor tortugensis* Cory.<sup>3</sup> TORTUGA GRASSQUIT.**

<sup>1</sup> *Tiaris bicolor grandior* (Cory): Nearest to *T. b. omissa*, but much larger; upper parts brighter olive green; bill blacker, the mandible fully as dark as the maxilla. Wing, 58–62; tail, 47–50.

The other color differences claimed by Ridgway I am unable to corroborate. Some specimens of *omissa* are fully as dark underneath, and approach *T. b. grandior* also in the coloration of the bill, although this organ is never uniform black as is invariably the case in males from Old Providence and St. Andrews.

<sup>2</sup> *Tiaris bicolor sharpei* (Hartert): Nearest to *T. b. omissa*, and about the same size but considerably paler throughout; adult males with throat, chest, and upper abdomen not so dark, dull slate color rather than black, the flanks paler olive-grayish, and the whitish edges to the lower tail coverts generally wider; females with dorsal surface lighter and the under parts pale buffy grayish.

This form is fairly well marked. Some specimens have the lower belly more or less grayish white in the middle, while a few others run close to *omissa*.

<sup>3</sup> *Tiaris bicolor tortugensis* Cory: Very close to *T. b. sharpei*, but even paler; adult males with dorsal surface lighter grayish-olive, less olivaceous; the blackish

*Tiaris tortugensis* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 221, October, 1909—Tortuga Island, off Venezuela, southern Caribbean Sea (type in Field Museum).

*Range*.—Tortuga Island, off the Venezuelan coast, Caribbean Sea. 8: Tortuga Island, 8.

***Tiaris fuliginosa*<sup>1</sup> *fuliginosa* (Wied). SOOTY GRASSQUIT.**

*Fringilla fuliginosa* Wied, Beitr. Naturg. Bras., 3, (1), p. 628, 1831—Camamú, Bahia, Brazil (descr. of male; type lost, formerly in coll. of Prince Wied; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 224, 1889).

*Oryzoborus unicolor* Burmeister, Syst. Uebers. Th. Bras., 3, p. 240, 1856—Brazil (descr. of male; type in Berlin Museum); Pelzeln, Orn. Bras., 3, p. 222, 1870—Bahia, Brazil.

*Amaurospiza unicolor* Cabanis, Journ. Orn., 14, p. 307, 1866—Brazil (crit.); Forbes, Ibis, 1881, p. 335—Quipapá, Pernambuco.

*Amaurospiza fuliginosa* Cabanis, Journ. Orn., 22, p. 85, 1874—Cantagallo, Rio de Janeiro.

*Phonipara fuliginosa* Sharpe, Cat. Bds. Brit. Mus., 12, p. 151, 1888—part, spec. b-d, Pernambuco, Brazil; Allen, Bull. Amer. Mus. N. H., 3, p. 369, 1891—Chapada, Matto Grosso (descr. of female); Ihering, Rev. Mus. Paul., 4, p. 154, 1900—Cantagallo, Rio de Janeiro.

*Tiaris fuliginosa* Ihering, Cat. Faun. Braz., 1, p. 378, 1907—part, Brazil (Bahia and Pernambuco).

*Tiaris fuliginosa fuliginosa* Naumburg, Bull. Amer. Mus. N. H., 60, p. 349, 1930—Chapada, Matto Grosso.

*Range*.—Wooded region of Brazil, from Pernambuco (Quipapá) to Rio de Janeiro (Cantagallo), and west to Matto Grosso (Chapada).<sup>2</sup>

***Tiaris fuliginosa fumosa* (Lawrence).<sup>3</sup> NORTHERN SOOTY GRASSQUIT.**

suffusion on the forehead more restricted; the blackish color underneath slightly duller and limited to throat and chest; abdomen extensively grayish white, variegated with dusky; white margins to under tail coverts wider; under wing coverts paler, grayish white rather than dusky; female not distinguishable. Wing, 53–57; tail, 42–46.

Certain individuals of *sharpei* from Aruba have very nearly as much whitish on the abdomen, but are darker and more greenish above, and have darker under wing coverts. *T. b. tortugensis* is the palest of all the races in the *bicolor* complex.

<sup>1</sup> *Tiaris fuliginosa* differs from *T. bicolor* by much larger size, and in the male sex by sooty gray (instead of olive-green) upper parts and wing-edgings, and dusky legs, while the female may be distinguished by decidedly (ruddy) brown dorsal surface, much darker brownish under parts, and darker legs.

<sup>2</sup> Three specimens from Matto Grosso do not differ in any way from others taken in eastern Brazil.

*Material examined*.—Pernambuco: Quipapá, 1; Bahia, 2; Chapada, Matto Grosso, 3.

<sup>3</sup> *Tiaris fuliginosa fumosa* (Lawrence): Very close to *T. f. fuliginosa*, but with larger bill; adult males with darker sooty upper parts and abdomen. Wing, 60–62, (female) 58–60; tail, 45–48, (female) 44–47; bill, 10–11.

After comparing a good series from Trinidad and Venezuela with a number of Brazilian skins, I am inclined to recognize—at least provisionally—the northern

*Phonipara fumosa* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 396, March, 1874—"Trinidad" (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York, examined); Salvin and Godman, Ibis, 1885, p. 118—Roraima (crit.); Salvin, Ibis, 1885, p. 215 (crit.).

*Phonipara phaeoptila* Salvin and Godman, Ibis, (5), 2, p. 445, 1884—Roraima (alt. 3,500 ft.), British Guiana (descr. of male; type in Salvin-Godman Collection, now in British Museum, examined).

*Phonipara fuliginosa* (not *Fringilla fuliginosa* Wied) Sharpe, Cat. Bds. Brit. Mus., 12, p. 151, 1888—part, spec. a, Roraima.

*Euetheia fuliginosa* Hellmayr, Nov. Zool., 13, p. 18, 1906—Caparo and Valencia, Trinidad, and near Cumaná, Venezuela (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 189, 1906—Heights of Aripo, Trinidad (crit., descr. of young male); idem, l.c., p. 360, 1908—Aripo, Trinidad.

*Tiaris fuliginosa* Ihering, Cat. Faun. Braz., 1, p. 378, 1907—part, Guyana and Cumaná.

*Tiaris phaeoptila* Chubb, Bds. Brit. Guiana, 2, p. 442, 1921—Roraima.

*Tiaris fuliginosus* subsp. (?) Roberts, Trop. Agric., 11, p. 99, 1934—Trinidad.

*Amaurospiza unicolor* (not *Oryzoborus unicolor* Burmeister) Salvin, Ibis, 1886, p. 503—part, Roraima.

*Range.*—Island of Trinidad; north coast of Venezuela from the hinterland of Cumaná west to Carabobo; British Guiana (Roraima).

### Genus SPIZA Bonaparte<sup>1</sup>

*Spiza* Bonaparte, Journ. Acad. Nat. Sci. Phila., 4, No. 1, p. 45, August, 1824—type, by subs. desig. (Bonaparte, Specchio Comp. Orn. Roma i Fildelfia, p. 47 [footnote], 1827), *Emberiza americana* Gmelin.

*Euspiza* Bonaparte, Giorn. Arcad., 52, p. 206, 1831—type, by orig. desig., "*Fringilla*" [= *Emberiza*] *americana* Gmelin.

*Euspina* Cabanis, Mus. Hein., 1, p. 133, Oct., 1851—type, by monotypy, *Emberiza americana* Gmelin.

form of the Sooty Grassquit as distinct. While it must be admitted that immature individuals are not or are hardly distinguishable, fully adult males from northern localities, when compared to others from Bahia and Matto Grosso, are decidedly darker above and on the belly, and in all plumages the bill appears to be rather heavier. The series from Brazil being, however, wholly inadequate, more material of the typical race should be examined in order to substantiate the constancy of the divergencies. The type of *P. fumosa*, a trade skin of the so-called "Trinidad or Orinoco preparation," agrees in every respect with examples from Aripo and Los Palmares. I am quite unable to understand Cherrie's statement that it "is very distinct" from Trinidad birds.

*Material examined.*—Trinidad: Caparo, 10; Valencia, 1; forest near Talparo, 1; Aripo, 6.—Venezuela: Forest of Los Palmares, Bermúdez, 6; Galipán, Cerro del Avila, near Caracas, 2; Sierra de Carabobo, 1.—British Guiana: Roraima, 1.

<sup>1</sup>A puzzling bird is *Emberiza townsendii* Audubon (Orn. Biog., 2, p. 183, 1834), which is known only from the type, now in the U. S. National Museum, taken May 11, 1833, by John K. Townsend at New Garden, Chester County, Pennsylvania. Its peculiarities cannot be accounted for by hybridism nor probably by individual variation. Full description of *Spiza townsendii* may be found in Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 174, 1901.

**\**Spiza americana* (Gmelin). DICKCISSEL.**

*Emberiza americana* Gmelin, Syst. Nat., 1, (2), p. 872, 1789—based on "Black-throated Bunting" Pennant, Arct. Zool., 2, p. 364, pl. 17; New York.

*Emberiza flavicollis* Gmelin, Syst. Nat., 1, (2), p. 926, 1789—based on "Yellow-throated Bunting" Pennant, Arct. Zool., 2, p. 374; New York.

*Passerina nigricollis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 25, p. 10, 1817—new name for *Emberiza americana* (Latham ex) Gmelin.

*Spiza americana* Sharpe, Cat. Bds. Brit. Mus., 12, p. 770, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 171, 1901 (monog., full bibliog.); Berlepsch and Hartert, Nov. Zool., 9, p. 29, 1902—Venezuela (Altagracia, Caicara, and Ciudad Bolívar, Orinoco; Suapuré and La Prición, Caura); Berlepsch, Nov. Zool., 15, p. 122, 1908—Cayenne; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 201, 1909—Aruba (April 24); Carriker, Ann. Carnegie Mus., 6, p. 912, 1910—Costa Rica (winter visitant); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 198, 1916—Orinoco Valley, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 566, 1917—Rio Salaquí and Calamar, Colombia; Chubb, Bds. Brit. Guiana, 2, p. 458, 1921—Abary River; Gross, Auk, 38, pp. 1-26, 163-194, 1921 (life history); Todd and Carriker, Ann. Carnegie Mus., 14, p. 533, 1922—Cincinnati, Buritaca, Mamatoco, Rio Hacha, and Tucurín, Santa Marta region, Colombia; Grinnell, Univ. Calif. Pub. Zool., 32, p. 187, 1928—Lower California; Griscom, Bull. Amer. Mus. N. H., 64, p. 358, 1932—Finca Chamá, Panajachel, Ocos, and Hacienda California, Guatemala (transient and winter visitant).

*Euspiza americana* Léotaud, Ois. Trinidad, p. 314, 1866—Trinidad (winter visitant).

**Range.**—Eastern North America, from northeastern Wyoming, northwestern North Dakota and Minnesota, southern Michigan, and southeastern Ontario south to Texas, Mississippi, Alabama, and northern Georgia, formerly also on the Atlantic coastal plain from Massachusetts to South Carolina, but now extremely rare east of the Alleghenies; winters from Guatemala to Colombia, Venezuela, Trinidad, French and British Guiana; accidental in Lower California, Arizona, Manitoba, Nova Scotia, Aruba (one record), and Jamaica.

83: North Dakota (Cannonball River, 1); Wisconsin (Beaver Dam, 5; Milton, 1); Illinois (Beach, Lake County, 2; Deerfield, 1; Chicago, 5; South Chicago, 1; Joliet, 5; St. Anne, Kankakee County, 1; Lewistown, 5; Warsaw, Hancock County, 1; Auburn Park, 1; Mound City, 1); Indiana (Liverpool, 2); Missouri (Cliff Cave, 1); Kansas (Hamilton, 1); Texas (Fort Worth, 9); Colorado (Fort Lyon, 2); Mexico (Tamaulipas, 1; Jalapa, 1; City of Mexico, 2; Cozumel Island, Yucatan, 1); Honduras (Ruatán Island, Bay Islands, 5); Guatemala (Lake Atitlán, 1); Nicaragua (San Emilio, Lake Nica-



ragua, 2; San Gerónimo, Chinandega, 3); Costa Rica (Limón, 2; Las Cañas, 2; Guayábo, 1); Old Providence Island, 3; Colombia ("Bogota," 3); Venezuela (Guayábo, Zulia, 2; Maracay, Aragua, 8); Aruba Island, 1.

Subfamily GEOSPIZINAE.<sup>1</sup> Ground Finches

Genus **GEOSPIZA** Gould

*Geospiza* Gould, Proc. Zool. Soc. Lond., 5, p. 5, Oct. 3, 1837—type, by orig. desig., *Geospiza magnirostris* Gould.

*Cactornis* Gould, Proc. Zool. Soc. Lond., 5, p. 6, Oct. 3, 1837—type, by orig. desig., *Cactornis scandens* Gould.

\****Geospiza magnirostris* Gould. LARGE-BILLED GROUND FINCH.**

*Geospiza magnirostris* Gould, Proc. Zool. Soc. Lond., 5, Oct. 3, 1837—Galapagos Islands (cotypes now in British Museum); idem, in Darwin, Zool. Beagle, 3, Birds, p. 100, pl. 36, 1841—"Charles and Chatham Islands"; Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 141, 1931 (monog.).<sup>2</sup>

*Geospiza strenua* Gould, Proc. Zool. Soc. Lond., 5, p. 5, Oct. 3, 1837—Galapagos Islands (cotypes now in British Museum); idem, in Darwin, Zool. Beagle, 3, p. 100, pl. 37, 1841—"James and Chatham Islands";<sup>3</sup> Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 65, 1931—Indefatigable and Albemarle.

*Geospiza pachyrhyncha* Ridgway, Proc. U. S. Nat. Mus., 18, p. 293, April 23, 1896—Tower Island (cotypes in Tring Collection, now in the American Museum of Natural History, New York); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 64, 1931—Tower.

*Geospiza darwini* Rothschild and Hartert, Nov. Zool., 6, p. 158, 1899—Culpepper Island (type in Tring Collection, now in the American Museum of Natural History, New York).

*Range.*—Northern and central islands of the Galapagos Archipelago (specifically recorded from Culpepper, Wenman, Abingdon,

<sup>1</sup> In the treatment of this group I have closely followed the late Harry Swarth's arrangement, as set forth in his elaborate monograph of the Avifauna of the Galapagos Islands (Occ. Pap. Calif. Acad. Sci., 18, 1931), but I do not see any practical advantage in separating the ground finches (*Geospiza*, *Platyspiza*, *Camarhynchus*, *Cactospiza*) as a family Geospizidae (cf. Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 29, 1929) distinct from the finches. Lowe (Ibis, 1936, pp. 318-319) considers them even truly fringilline.

<sup>2</sup> Swarth presented excellent arguments to show that the original examples did not come from either Charles or Chatham, as had been assumed through fallacious interpretation of a certain sentence in Darwin's writings.

<sup>3</sup> Swarth (l.c., p. 149) questions the locality "James," pointing out at the same time that the original specimens, in size of bill, most closely resemble birds from Albemarle. There seems hardly any doubt that in the cases of *G. strenua* and *G. magnirostris* the localities, as given by Gould in the "Zoology of the Beagle," are altogether untrustworthy.

Bindloe, Tower, James, Jervis, Albemarle, Narborough, Duncan, Indefatigable, Seymour, and Barrington).<sup>1</sup>

4: Galapagos Islands (Indefatigable, 3; James, 1).

**\*Geospiza fortis** Gould. STURDY GROUND FINCH.

*Geospiza fortis* Gould, Proc. Zool. Soc. Lond., 5, p. 5, Oct. 3, 1837—Galapagos Islands (one of the cotypes now in the British Museum); idem, in Darwin, Zool. Beagle, 3, Birds, p. 101, pl. 38, 1841—"Charles and Chatham Islands"; Sharpe, Cat. Bds. Brit. Mus., 12, p. 10, 1888—Charles Island; Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 152, 1932 (monog., full bibliog.); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 63, 1931—Seymour, Indefatigable, and Charles Islands.

*Geospiza dubia* Gould, Proc. Zool. Soc. Lond., 5, p. 6, Oct. 3, 1837—Galapagos Islands; idem, in Darwin, Zool. Beagle, 3, Birds, p. 103, 1841—Chatham Island; Sharpe, Cat. Bds. Brit. Mus., 12, p. 9, 1888 (type specimen believed to have been lost); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 63, 1931—Chatham.

*Geospiza nebulosa* Gould, Proc. Zool. Soc. Lond., 5, p. 5, Oct. 3, 1837—Galapagos Islands (type, from Charles Island, in the British Museum); idem, in Darwin, Zool. Beagle, 3, Birds, p. 101, 1841—Charles Island.

*Geospiza dentirostris* Gould, Proc. Zool. Soc. Lond., 5, p. 6, Oct. 3, 1837—Galapagos Islands (type now in the British Museum).

*Cactornis brevirostris* Ridgway, Proc. U. S. Nat. Mus., 12, "1889," p. 108, pub. Feb. 5, 1890—Charles Island (type in U. S. National Museum).

*Geospiza bauri* Ridgway, Proc. U. S. Nat. Mus., 17, p. 362, Nov. 15, 1894—James Island (type in Tring Collection, now in the American Museum of Natural History, New York).

*Geospiza albemarlei* Ridgway, Proc. U. S. Nat. Mus., 17, p. 362, Nov. 15, 1894—Albemarle Island (type in U. S. National Museum); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 63, 1931—Albemarle.

*Geospiza fratercula* Ridgway, Proc. U. S. Nat. Mus., 17, p. 363, Nov. 5, 1894—Abingdon Island (type in U. S. National Museum).

*Geospiza dubia simillima* Rothschild and Hartert, Nov. Zool., 6, p. 161, 1899—Charles Island (type in Tring Collection, now in the American Museum of Natural History, New York).

*Geospiza fortis platyrhyncha* Heller and Snodgrass, Condor, 3, p. 75, 1901—Iguana Cove, Albemarle Island (type in coll. of Stanford University).

**Range.**—The greater part of the Galapagos Archipelago, including all of the central islands (unrecorded from Culpepper and Tower Islands).<sup>2</sup>

<sup>1</sup> With ample material for study, Swarth has shown the four "species" synonymized above to be not properly separable one from another.

<sup>2</sup> After studying upwards of nine hundred specimens, the late H. S. Swarth came to the conclusion that *G. dubia* is not separable from *G. fortis*. The other names listed are likewise considered to be synonyms. For an explanation and

16: Galapagos Islands (Albemarle, 8; Charles, 3; Indefatigable, 2; Chatham, 1; James, 1; Bindloe, 1).

**\*Geospiza fuliginosa fuliginosa** Gould. SOOTY GROUND FINCH.

*Geospiza fuliginosa* Gould, Proc. Zool. Soc. Lond., 5, p. 5, Oct. 3, 1837—Galapagos (cotypes now in British Museum); idem, in Darwin, Zool. Beagle, 3, Birds, p. 101, 1841—Chatham and James; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 504, 1901 (monog.); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 62, 1931 Albemarle, Chatham, Hood, Barrington, Charles, Duncan, and Indefatigable.

*Geospiza harterti* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 507, 1901—Chatham Island (type in Tring Collection, now in the American Museum of Natural History, New York).

*Geospiza fuliginosa parrula* (not *Geospiza parrula* Gould) Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 294, 1904 (crit.).

*Geospiza fuliginosa fuliginosa* Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 169, 1931 (monog.).

*Range*.—All of the central and southern islands of the Galapagos Archipelago (James, Jervis, Indefatigable, Seymour, Daphne, Duncan, Albemarle, Narborough, Brattle, Barrington, Charles, Gardner-near-Charles, Enderby, Hood, Gardner-near-Hood, and Chatham).

13: Galapagos Islands (Albemarle, 8; Charles, 4; Narborough, 1).

**\*Geospiza fuliginosa minor** Rothschild and Hartert.<sup>1</sup> LESSER SOOTY GROUND FINCH.

*Geospiza fuliginosa minor* Rothschild and Hartert, Nov. Zool., 6, p. 162, 1899—Bindloe and Abingdon Islands (type, from Bindloe, in Tring Collection, now in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 26, p. 152, 1919); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 173, 1931—Wenman, Abingdon, and Bindloe (monog.).

*Range*.—Wenman, Abingdon, and Bindloe Islands, Galapagos Archipelago.

1: Galapagos Islands (Bindloe, 1).

**\*Geospiza difficilis acutirostris** Ridgway.<sup>2</sup> SHARP-BILLED GROUND FINCH.

*Geospiza acutirostris* Ridgway, Proc. U. S. Nat. Mus., 17, p. 363, Nov. 15, 1894—Tower Island (type in Tring Collection, now in the American

discussion of the unusual individual variations displayed by this species Swarth's elaborate paper must be consulted.

<sup>1</sup>A very slightly differentiated race averaging smaller in size and with smaller bill.

<sup>2</sup>*Geospiza difficilis acutirostris* Ridgway differs from the nominate race merely by slenderer, more acute bill. Its resemblance to *G. difficilis*, insisted upon by Swarth, is very close indeed, and the natural affinities of the two species seem

Museum of Natural History, New York); Rothschild and Hartert, Nov. Zool., **6**, p. 162, 1899—Tower; Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 506, 1901 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., **18**, p. 177, 1931—Tower (monog.); Fisher and Wetmore, Proc. U. S. Nat. Mus., **79**, art. 10, p. 62, 1931—Tower.

*Geospiza fuliginosa acutirostris* Snodgrass and Heller, Proc. Wash. Acad. Sci., **5**, p. 316, 1904 (crit.).

*Range.* Tower Island, Galapagos Archipelago.

1: Galapagos Islands (Tower Island, 1).

### **Geospiza difficilis difficilis** Sharpe. SHARPE'S GROUND FINCH.

*Geospiza difficilis* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 12, 1888—part, Abingdon Island<sup>1</sup> (cotypes in British Museum); Rothschild and Hartert, Nov. Zool., **6**, p. 163, 1899—Abingdon (crit.); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 507, 1901 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., **18**, p. 178, 1931 (monog.).

*Geospiza fuliginosa difficilis* Snodgrass and Heller, Proc. Wash. Acad. Sci., **5**, p. 317, 1904 (crit.).

*Range.*—Abingdon Island, Galapagos Archipelago.

### **Geospiza difficilis debilirostris** Ridgway. SLENDER-BILLED GROUND FINCH.

*Geospiza debilirostris* Ridgway, Proc. U. S. Nat. Mus., **17**, p. 363, Nov. 15, 1894—James Island (type in U. S. National Museum); Rothschild and Hartert, Nov. Zool., **6**, p. 163, 1899 (crit.); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 508, 1901 (monog.); Snodgrass and Heller, Proc. Wash. Acad. Sci., **18**, p. 333, 1904 (crit.); Swarth, Occ. Pap. Calif. Acad. Sci., **18**, p. 180, 1931—James and Indefatigable (monog.).

*Range.*—James and Indefatigable, Galapagos Archipelago.

### **Geospiza difficilis septentrionalis** Rothschild and Hartert. NORTHERN GROUND FINCH.

*Geospiza scandens septentrionalis* Rothschild and Hartert, Nov. Zool., **6**, p. 165, 1899—part, Wenman Island (type in Tring Collection, now in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., **26**, p. 153, 1919).

*Geospiza septentrionalis* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 510, 1901—part, Wenman; Snodgrass and Heller, Proc. Wash. Acad. Sci., **5**, p. 333, 1904—part, Wenman.

more correctly expressed by binomial names. *G. debilirostris* and *G. septentrionalis* are other members of the same group, the various representatives replacing one another on different islands. Five specimens examined.

<sup>1</sup> The specimens from other islands, referred here by the describer, pertain to other species. Spec. a is *G. d. debilirostris*; spec. f, *G. f. fuliginosa*; spec. g, *Camarrhynchus parrulus*. Cf. Swarth, Occ. Pap. Calif. Acad. Sci., **18**, p. 179, 1931.

*Geospiza septentrionalis septentrionalis* Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 184, 1931 (monog.).

Range.—Wenman Island, Galapagos Archipelago.

***Geospiza difficilis nigrescens* Swarth.<sup>1</sup> BLACKISH GROUND FINCH.**

*Geospiza septentrionalis nigrescens* Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 185, June 29, 1931—Culpepper Island (type in California Academy of Sciences).

*Geospiza scandens septentrionalis* Rothschild and Hartert, Nov. Zool., 6, p. 165, 1899—part, Culpepper.

*Geospiza septentrionalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 510, 1901—part, Culpepper; Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 333, 1904—part, Culpepper.

Range.—Culpepper Island, Galapagos Archipelago.

***Geospiza scandens scandens* (Gould). GOULD'S GROUND FINCH.**

*Cactornis scandens* Gould, Proc. Zool. Soc. Lond., 5, p. 7, Oct. 3, 1837—Galapagos Islands (type, from James Island, in British Museum); idem, in Darwin, Zool. Beagle, 3, p. 104, pl. 42, 1841—James; Sharpe, Cat. Bds. Brit. Mus., 12, p. 19, 1888—Galapagos.

*Geospiza scandens* Ridgway, Proc. U. S. Nat. Mus., 19, p. 534, 1897 (crit.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 509, 1901 (monog.).

*Geospiza scandens scandens* Rothschild and Hartert, Nov. Zool., 6, p. 164, 1899 (crit.); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 336, 1904 (crit.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 190, 1931 (monog.).

Range.—James and Jervis Islands, Galapagos Archipelago.

**\**Geospiza scandens intermedia* Ridgway. INTERMEDIATE GROUND FINCH.**

*Geospiza intermedia* Ridgway, Proc. U. S. Nat. Mus., 17, p. 361 (in text), Nov. 18, 1894—Charles Island (type in U. S. National Museum); idem, l.c., 19, p. 535, 1897 (crit.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 511, 1901 (monog.).

*Geospiza barringtoni* Ridgway, Proc. U. S. Nat. Mus., 17, p. 361, Nov. 15, 1894—Barrington Island (type in Tring Collection, now in the American Museum of Natural History, New York).

*Geospiza fatigata* Ridgway, Proc. U. S. Nat. Mus., 18, p. 293, April 23, 1896—Indefatigable Island (type in U. S. National Museum); idem, l.c., 19, p. 539, 1897 (crit.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 511, 1901 (monog.); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 62, 1931—Indefatigable and Barrington.

*Geospiza scandens intermedia* Rothschild and Hartert, Nov. Zool., 6, p. 164, 1899—Charles (crit.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 193, 1931 (monog.).

<sup>1</sup>*Geospiza difficilis nigrescens* Swarth: Similar to *G. d. septentrionalis*, but with larger (both longer and heavier) bill. Bill, 15½–17, (female) 14½–15.

*Geospiza scandens fatigata* Rothschild and Hartert, Nov. Zool., 6, p. 164, 1899 (crit.); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 338, 1904 (crit.).

*Range*.—Albemarle, Duncan, Indefatigable, Charles, Barrington, and Chatham Islands, including adjacent islets, in the Galapagos Archipelago.<sup>1</sup>

5: Galapagos Islands (Indefatigable, 4; Charles, 1).

***Geospiza scandens abingdoni* (Sclater and Salvin). ABINGDON ISLAND GROUND FINCH.**

*Cactornis abingdoni* Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, pp. 323, 326—Abingdon Island (cotypes in British Museum); Salvin, Trans. Zool. Soc. Lond., 9, p. 486, 1876 (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 20, 1888—Abingdon.

*Geospiza abingdoni* Ridgway, Proc. U. S. Nat. Mus., 19, p. 540, March, 1897 (crit.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 513, 1901—Abingdon (monog.).

*Geospiza scandens abingdoni* Rothschild and Hartert, Nov. Zool., 6, p. 165, 1899—part, Abingdon; Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 340, 1904—Abingdon; Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 195, 1931 (monog.).

*Range*.—Abingdon Island, Galapagos Archipelago.

***Geospiza scandens rothschildi* Heller and Snodgrass.<sup>2</sup> ROTHSCHILD'S GROUND FINCH.**

*Geospiza scandens rothschildi* Heller and Snodgrass, Condor, 3, p. 75, 1901—Bindloe Island (type in coll. of Stanford University); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 341, 1904—Bindloe; Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 197, 1931 (monog.).

*Geospiza scandens abingdoni* (not of Ridgway) Rothschild and Hartert, Nov. Zool., 6, p. 165, 1899—part, Bindloe; idem, l.c., 9, p. 398, 1902—part, Bindloe.

*Geospiza rothschildi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 673, 1901—Bindloe (monog.).

*Range*.—Bindloe Island, Galapagos Archipelago.<sup>3</sup>

<sup>1</sup> Both *G. barringtoni* and *G. fatigata* were found by Swarth, who had an enormous series at his command, to be inseparable from Charles Island birds (*intermedia*), and what material we have seen certainly bears out his conclusions.

<sup>2</sup> *Geospiza scandens rothschildi* Heller and Snodgrass may be distinguished from the other races by slightly heavier bill.

Five specimens compared with an equal number from Abingdon.

<sup>3</sup> *Cactornis assimilis* Gould (Proc. Zool. Soc. Lond., 5, p. 7, Oct. 5, 1837—type, from the "Galapagos," in the British Museum) may be an earlier name for *G. s. rothschildi*, but its proper application is in doubt (cf. Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 198, 1931).

**\*Geospiza conirostris conirostris** Ridgway. CONE-BILLED  
GROUND FINCH.

*Geospiza conirostris* Ridgway, Proc. U. S. Nat. Mus., 12, "1889," p. 106, pub. Feb. 5, 1890—Hood Island (type in U. S. National Museum); idem, l.c., 19, p. 516, 1897—Hood (crit.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 498, 1901—Hood (monog.); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 64, 1931—Hood.

*Geospiza media* Ridgway, Proc. U. S. Nat. Mus., 12, "1889," p. 107, pub. Feb. 5, 1890—Hood Island (type in U. S. National Museum); idem, l.c., 19, p. 517, 1901—Hood (monog.).

*Geospiza conirostris conirostris* Rothschild and Hartert, Nov. Zool., 6, p. 158, 1899 (crit.); idem, l.c., 9, p. 389, 1902; Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 344, 1904 (crit.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 201, 1931—Hood and Gardner-near-Hood (monog.).

*Range*.—Hood and Gardner-near-Hood Islands, in the Galapagos Archipelago.

1: Galapagos Islands (Hood Island, 1).

**Geospiza conirostris propinqua** Ridgway. TOWER ISLAND  
GROUND FINCH.

*Geospiza propinqua* Ridgway, Proc. U. S. Nat. Mus., 17, p. 361, Nov. 15, 1894—Tower Island (type in coll. of G. Baur, now with the Tring Collection in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 26, p. 152, 1919); idem, l.c., 19, p. 543, 1897 (crit.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 499, 1901 (monog.); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 64, 1931—Tower Island.

*Geospiza conirostris propinqua* Rothschild and Hartert, Nov. Zool., 6, p. 159, 1899—Tower (crit.); idem, l.c., 9, p. 390, 1902; Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 343, 1904 (crit.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 204, 1931—Tower (monog.).

*Range*.—Tower Island, Galapagos Archipelago.<sup>1</sup>

Genus **PLATYSPIZA** Ridgway

*Platyspiza* Ridgway, Proc. U. S. Nat. Mus., 19, "1896," p. 545, pub. March 15, 1896—type, by orig. desig., *Camarhynchus variegatus* Selater and Salvin=*C. crassirostris* Gould.

**\*Platyspiza crassirostris** (Gould). DARWIN'S GROUND FINCH.

*Camarhynchus crassirostris* Gould, Proc. Zool. Soc. Lond., 5, p. 6, Oct. 5, 1837—Galapagos Islands (type lost);<sup>2</sup> idem, in Darwin, Zool. Beagle, 3, Birds, p. 103, pl. 41, 1841—Charles Island?

<sup>1</sup> Two specimens of an undetermined form have been secured on Culpepper Island (cf. Swarth, l.c., p. 206, 1931).

<sup>2</sup> A specimen from Charles listed by Sharpe (Cat. Bds. Brit. Mus., 12, p. 16, 1888) as "type" of *C. crassirostris* is erroneously so labeled. Cf. Swarth, l.c., p. 209 (in text), 1931.

*Camarhynchus variegatus* Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 324—Abingdon and Bindloe Islands (cotypes in British Museum); Salvin, Trans. Zool. Soc. Lond., 9, p. 489, pl. 85, 1876—Bindloe and Abingdon (monog.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 15, 1888—Abingdon and Bindloe; Ridgway, Proc. U. S. Nat. Mus., 19, p. 548, 1897 (monog.).

*Geospiza crassirostris* Rothschild and Hartert, Nov. Zool., 6, p. 166, 1899 (crit.); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 291, 1904 (crit., nest and eggs descr.).

*Platyspiza crassirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 474, 1901 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 208, 1931 (monog.); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 16, 1931—Chatham and Indefatigable.

*Range*.—Abingdon, Bindloe, Albemarle, Narborough, James, Jervis, Duncan, Indefatigable, Chatham, and Charles Islands, Galapagos Archipelago.

1: Galapagos Islands (Indefatigable, 1).

### Genus CAMARHYNCHUS Gould

*Camarhynchus* Gould, Proc. Zool. Soc. Lond., 5, p. 6, Oct. 3, 1837 type, by orig. desig., *Camarhynchus psittacula* Gould.

### *Camarhynchus psittacula* Gould. PARROT GROUND FINCH.

*Camarhynchus psittacula* Gould, Proc. Zool. Soc. Lond., 5, p. 6, Oct. 3, 1837—Galapagos Islands (cotypes in British Museum); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 215, 1931 (monog.).

*Camarhynchus psittaculus* Gould, in Darwin, Zool. Beagle, 3, Birds, p. 103, pl. 40, 1841—James Island; Ridgway, Proc. U. S. Nat. Mus., 19, p. 552, 1897 (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 477, 1901 (monog.).

*Camarhynchus townsendi* Ridgway, Proc. U. S. Nat. Mus., 12, "1889," p. 110, Feb. 5, 1890—Charles Island (type in U. S. National Museum).

*Camarhynchus rostratus* Ridgway, Proc. U. S. Nat. Mus., 17, p. 363, Nov. 15, 1894—James Island (type in U. S. National Museum).

*Camarhynchus compressirostris* Ridgway, Proc. U. S. Nat. Mus., 18, p. 294, April 23, 1896—Jervis Island (type in coll. of G. Baur, now with the Tring Collection in the American Museum of Natural History, New York); idem, Proc. U. S. Nat. Mus., 19, p. 558, 1897 (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 481, 1901 (monog.).

*Range*.—James, Jervis, Seymour, Indefatigable, Duncan, and Charles Islands, Galapagos Archipelago.<sup>1</sup>

### *Camarhynchus affinis* Ridgway.<sup>2</sup> ALLIED GROUND FINCH.

<sup>1</sup> For the reasons of synonymizing *C. townsendi* and *C. compressirostris* with *C. psittacula*, Swarth's elaborate paper should be consulted.

<sup>2</sup> *Camarhynchus affinis* Ridgway so closely resembles *C. psittacula* that one is tempted to regard it as only subspecifically distinct. However, both have



*Camarhynchus affinis* Ridgway, Proc. U. S. Nat. Mus., 17, p. 365, Nov. 15, 1894—Albemarle Island (type in coll. of G. Baur, now with the Rothschild Collection in the American Museum of Natural History, New York); idem, l.c., 19, p. 554, 1897 (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 481, 1901 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 222, 1931 (monog.).

*Camarhynchus incertus* Ridgway, Proc. U. S. Nat. Mus., 18, p. 294, April 23, 1896—James Island (type in coll. of G. Baur, now with the Tring Collection in the American Museum of Natural History, New York); idem, l.c., 19, p. 560, 1897—James Island (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 482, 1901—part, James Island.

*Geospiza affinis* Rothschild and Hartert, Nov. Zool., 6, p. 168, 1899—Albemarle and Narborough; Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 289, 1904—Albemarle (crit.).

*Geospiza incerta* Rothschild and Hartert, Nov. Zool., 6, p. 168, 1899—part, James Island (crit.).

*Range.* Albemarle (and perhaps Narborough) Islands, also recorded from James and Seymour Islands, Galapagos Archipelago.

### ***Camarhynchus habeli* Sclater and Salvin. HABEL'S GROUND FINCH.**

*Camarhynchus habeli* Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 325—Abingdon and Bindloe Islands (cotypes, from Abingdon Island, in the British Museum); Salvin, Trans. Zool. Soc. Lond., 9, p. 490, pl. 86, 1876 (monog.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 17, 1888 (Abingdon designated as type locality); Ridgway, Proc. U. S. Nat. Mus., 19, p. 555, 1897—Abingdon (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 480, 1901—Abingdon and Bindloe (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 219, 1931—Abingdon and Bindloe (monog.).

*Camarhynchus bindloei* Ridgway, Proc. U. S. Nat. Mus., 18, p. 294, April 23, 1896—Bindloe Island (type in coll. of G. Baur, now with the Tring Collection in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 26, p. 153, 1919).

*Geospiza habeli* Rothschild and Hartert, Nov. Zool., 6, p. 168, 1899—Abingdon and Bindloe (crit.); idem, l.c., 9, p. 401, 1902 (crit.); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 288, 1904—Abingdon and Bindloe (crit.).

*Range.*—Abingdon and Bindloe Islands, Galapagos Archipelago.

### ***Camarhynchus pauper* Ridgway. SMALL-BILLED GROUND FINCH.**

*Camarhynchus pauper* Ridgway, Proc. U. S. Nat. Mus., 12, "1889," p. 111, pub. Feb. 5, 1890—Charles Island (type in U. S. National Museum); idem, l.c., 19, p. 559, 1897 (monog.); idem, Bull. U. S. Nat. Mus., 50,

been taken on Jervis and Seymour, and while the occurrence of *C. affinis* on these islands may be merely casual, the matter needs further investigation. I am inclined to think that *C. psittacula*, *C. affinis*, and *C. habeli* will eventually prove to be mutual representatives on different islands.

Part 1, p. 483, 1901 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 224, 1931 (monog.).

*Geospiza paupera* Rothschild and Hartert, Nov. Zool., 6, p. 169, 1899 (crit.); idem, l.c., 9, p. 401, 1902—Charles; Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 288, 1904—Charles (crit.).

*Range*.—Charles Island, Galapagos Archipelago.

**\**Camarhynchus parvulus parvulus* (Gould). BLACK-HEADED GROUND FINCH.**

*Geospiza parvula* Gould,<sup>1</sup> Proc. Zool. Soc. Lond., 5, p. 6, Oct. 3, 1837—Galapagos (cotypes, from James Island, in British Museum); idem, in Darwin, Zool. Beagle, 3, Birds, p. 102, pl. 39, 1841—James Island.

*Camarhynchus prothemelas* Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 325—Indefatigable Island (cotypes in British Museum); Sharpe, Cat. Bds. Brit. Mus., 12, p. 7, 1888—Indefatigable; Salvin, Trans. Zool. Soc. Lond., 9, p. 490, 1876 (monog., excl. of Chatham); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 484, 1901 (monog.); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 66, 1931—Charles.

*Geospiza prothemelas* Rothschild and Hartert, Nov. Zool., 6, p. 169, 1899 (crit.).

*Geospiza prothemelas prothemelas* Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 284, 1904—Albemarle, James, Duncan, and Charles Islands (crit.).

*Camarhynchus parvulus parvulus* Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 229, 1931 (monog.).

*Range*.—Wenman, Abingdon, James, Jervis, Seymour, Indefatigable, Duncan, Albemarle, Cowley, Narborough, Barrington, Charles, and Gardner-near-Charles Islands, Galapagos Archipelago.

1: Galapagos Islands (Albemarle, 1).

***Camarhynchus parvulus salvini* Ridgway. SALVIN'S GROUND FINCH.**

*Camarhynchus salvini* Ridgway, Proc. U. S. Nat. Mus., 17, p. 364, Nov. 15, 1894—Chatham Island (type in U. S. National Museum); idem, l.c., 19, p. 561, 1897 (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 486, 1901 (monog.).

*Camarhynchus prothemelas* (not of Selater and Salvin) Sundevall, Proc. Zool. Soc. Lond., 1871, p. 125—part, Chatham; Ridgway, Proc. U. S. Nat. Mus., 12, "1889," p. 110, Feb., 1890—part, Chatham.

*Geospiza salvini* Rothschild and Hartert, Nov. Zool., 6, p. 169, 1899—Chatham (crit.); idem, l.c., 9, p. 402, 1902—Chatham.

<sup>1</sup> As shown by Swarth, this name, based on adult male and female from James Island, refers to the form that was subsequently described as *C. prothemelas*, although it had been misapplied by Snodgrass and Heller and others to certain supposed races of *Geospiza fuliginosa*.

*Geospiza prothemelas salvini* Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 287, 1904—Chatham (crit.).

*Camarhynchus prothemelas salvini* Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 232, 1931—Chatham (monog.).

*Range*.—Chatham Island, Galapagos Archipelago.

***Camarhynchus conjunctus* Swarth.<sup>1</sup> SWARTH'S GROUND FINCH.**

*Camarhynchus conjunctus* Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 33, Jan. 29, 1929—Charles Island (type in the California Academy of Sciences); idem, Occ. Pap. Calif. Acad. Sci., 18, p. 237, 1931 (monog.).

*Range*.—Charles Island, Galapagos Archipelago.

***Camarhynchus aureus* Swarth.<sup>2</sup> YELLOW-BELLIED GROUND FINCH.**

*Camarhynchus aureus* Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 34, Jan. 29, 1929—Chatham Island (type in the California Academy of Sciences); idem, Occ. Pap. Calif. Acad. Sci., 18, p. 236, 1931 (monog.).

*Range*.—Chatham Island, Galapagos Archipelago.

**Genus CACTOSPIZA Ridgway**

*Cactospiza* Ridgway, Proc. U. S. Nat. Mus., 19, p. 546, March 15, 1897 -- type, by orig. desig., *Cactornis pallida* Selater and Salvin.

***Cactospiza pallida pallida* (Selater and Salvin). PALE GROUND FINCH.**

*Cactornis pallida* Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 327—Indefatigable Island (cotypes in British Museum); Salvin, Trans. Zool.

<sup>1</sup>*Camarhynchus conjunctus* Swarth: Upper parts generally dull olive green, feathers of pileum with dusky centers, giving a blackish appearance to top of head; sides of head like back; eyelids and faint superciliary line pale yellowish; remiges and rectrices dusky, edged with olivaceous; greater and median wing coverts like the back, narrowly edged with yellowish, producing two poorly defined wing bars; below greenish yellow, paler than back; sides of breast, flanks, and lower tail coverts tinged with brownish, middle of belly pale yellowish; chin and throat indistinctly marked with tawny, of the same shade as is characteristic of the gular patch in some species of *Certhidea*; feathers of throat and upper breast black-centered, producing a streaked appearance, the general effect of which is of poorly defined black lines surrounding a rather nebulous tawny throat patch; bill black; legs dark brown. Wing (male), 58–59; tail, 38½–40; bill, 9½–10.

This species is stated by its describer to be intermediate in certain outstanding features between *Camarhynchus* and *Certhidea*, lying in measurements and bulk between the maximum reached in *Certhidea*, and the minimum in other species of *Camarhynchus*. The bill especially is described as being intermediate in shape and size between the typical members of the two genera. This curious bird is known only from two evidently adult males collected on Charles Island on February 28, 1906. The combination of the tawny wash on the throat with blackish streaks on it and the upper breast makes one think of the result of some hybridization. Until more material becomes available, it will be hard to interpret correctly the significance of the characters shown by these puzzling specimens.

<sup>2</sup>*Camarhynchus aureus* Swarth: Generally similar to *C. conjunctus*, but with slightly heavier bill and more uniform coloration, the under parts being, from bill

Soc. Lond., 9, p. 487, 1876—Indefatigable (monog.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 20, 1888—Indefatigable; Ridgway, Proc. U. S. Nat. Mus., 12, p. 109, 1890—James Island (crit.).

*C[actornis] hypoleuca* Ridgway, Proc. U. S. Nat. Mus., 12, p. 109 (in text), Feb. 5, 1890—James Island (type in U. S. National Museum).

*Camarhynchus pallidus* Ridgway, Proc. U. S. Nat. Mus., 19, p. 565, 1897—Indefatigable, Jervis, and James (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 487, 1901—Indefatigable, Jervis, James, Duncan, and Albemarle (monog.).

*Geospiza pallida* Rothschild and Hartert, Nov. Zool., 6, p. 165, 1899—part, Indefatigable, Jervis, Duncan, James, and Albemarle (crit.); idem, l.c., 9, p. 399, 1902—Albemarle and Indefatigable; Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 277, 1904—part, Indefatigable, Jervis, Duncan, and James (crit.).

*Cactospiza pallida pallida* Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 240, 1931 (monog.).

*Range.*—James, Jervis, Seymour, Indefatigable, Duncan, and Charles Islands, Galapagos Archipelago.<sup>1</sup>

### ***Cactospiza pallida producta* (Ridgway).<sup>2</sup> ALBEMARLE ISLAND GROUND FINCH.**

*Camarhynchus productus* Ridgway, Proc. U. S. Nat. Mus., 17, p. 364, Nov. 15, 1894—Albemarle Island (type in coll. of G. Baur, now with the Tring Collection in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 26, p. 153, 1919).

*Camarhynchus pallidus* (not *Cactornis pallida* Selater and Salvin) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 487, 1901—part, Albemarle.

*Geospiza pallida* Rothschild and Hartert, Nov. Zool., 6, p. 165, 1899—part, Albemarle (crit.); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 277, 1904—part, Albemarle.

*Cactospiza pallida producta* Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 243, 1931—Albemarle (monog.).

to tail coverts, almost uniformly pale yellow, broken only by a slightly mottled appearance on the breast, where the blackish base of the feathers show through, and with sides of breast and flanks slightly darker. The yellow of the under surface spreads over the sides of neck and face, cheeks, and auriculars, to meet a broad yellow superciliary line extending from bill and forehead back to a point well behind the eye. The bill is blackish, with edges of upper and tip of lower mandible slightly paler; legs blackish. Wing (male), 58; tail (worn), 35; bill, 9.

Known from a single male in rather worn condition (Jan. 25, 1906) from Chatham Island.

<sup>1</sup> On the basis of good series Swarth came to the conclusion that the maintenance of *C. hypoleuca* from James is no more justifiable than the segregation of the populations of Duncan, Charles, or Jervis.

<sup>2</sup> *Cactospiza pallida producta* (Ridgway): Exactly like the nominate race, but with slightly smaller bill.

The few specimens examined from Albemarle seem to substantiate Swarth's opinion that *C. p. producta* merits recognition.

*Range*.—Albemarle and (presumably) Narborough Islands, Galapagos Archipelago.

***Cactospiza pallida striatipecta* Swarth.<sup>1</sup> STRIPED-BREASTED GROUND FINCH.**

*Cactospiza pallida striatipecta* Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 245, June 29, 1931—Chatham Island (type in the California Academy of Sciences).

*Geospiza pallida* (not *Cactornis pallida* Sclater and Salvin) Rothschild and Hartert, Nov. Zool., 6, p. 165, 1899—part, Chatham Island.

*Range*.—Chatham Island, Galapagos Archipelago.

***Cactospiza giffordi* Swarth.<sup>2</sup> GIFFORD'S GROUND FINCH.**

*Cactospiza giffordi* Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 32, Jan. 29, 1929—Indefatigable Island (type in the California Academy of Sciences); idem, Occ. Pap. Calif. Acad. Sci., 18, p. 246, 1931—Indefatigable (monog.).

*Range*.—Indefatigable Island, Galapagos Archipelago.

***Cactospiza heliobates* (Snodgrass and Heller).<sup>3</sup> HELLER'S GROUND FINCH.**

*Geospiza heliobates* Snodgrass and Heller, Condor, 3, p. 96, July, 1901—Tagus Cove, Albemarle Island (type in coll. of Stanford University); idem, Proc. Wash. Acad. Sci., 5, p. 279, 1904—Albemarle and Narborough (monog., habits); Rothschild and Hartert, Nov. Zool., 9, p. 400, 1902—Albemarle (crit.).

*Cactospiza heliobates* Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 247, 1931—Albemarle and Narborough (monog.).

*Range*.—Albemarle and Narborough, Galapagos Archipelago.

**Genus CETHIDEA Gould<sup>4</sup>**

*Cethidea* Gould, Proc. Zool. Soc. Lond., 5, p. 7, Oct. 3, 1837—type, by monotypy, *Cethidea olivacea* Gould.

<sup>1</sup>*Cactospiza pallida striatipecta* Swarth: Similar to *C. p. pallida*, but with shorter, heavier bill. Besides, the streaking below is generally more extensive as well as more sharply defined. Wing (males), 69–71½; tail, 42–47; bill, (circa) 14.

<sup>2</sup>*Cactospiza giffordi* Swarth: "Closely related to the *pallida-heliobates* group, but much smaller and with more slender bill than any other described form in that group. Wing (male), 64; tail, 41½; bill, 13½." (Swarth, l.c.) Known from a single male in rather worn plumage.

<sup>3</sup>*Cactospiza heliobates* (Snodgrass and Heller): Nearly related to *C. pallida* (s. lat.), but with smaller bill; breast and sides conspicuously streaked; the upper parts very dark, almost uniformly blackish. Wing (males), 70–73½; tail, 42–45; bill, 12½–14½.

Two specimens from Albemarle examined.

<sup>4</sup>This genus, long referred to the Warblers (Compsothlypidae), is unquestionably a close relative of the other Galapagos finches. Not only do some species of *Camarhynchus* show a certain approach to its characters, but the structure of the horny palate in *Cethidea* was found by Sushkin (Verh. 6th Intern. Orn. Kongr. Kopenhagen, p. 376, 1929) to be strictly Geospizine and totally different from the Warblers.

**Certhidea olivacea becki** Rothschild.<sup>1</sup> BECK'S CERTHIDEA.

*Certhidea becki* Rothschild, Bull. Brit. Orn. Cl., 7, p. liii, May 25, 1898—Wenman Island (type in Tring Collection, now in the American Museum of Natural History, New York); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 767, 1902—Wenman (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 259, 1931—Culpepper and Wenman (monog.).

*Certhidea drownei* Rothschild, Bull. Brit. Orn. Cl., 7, p. liii, May 25, 1898—Culpepper Island (type in Tring Collection, now in the American Museum of Natural History, New York); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 767, 1902—Culpepper (monog.).

*Range.*—Culpepper and Wenman, Galapagos Archipelago.

**Certhidea olivacea fusca** Scater and Salvin. DUSKY CERTHIDEA.

*Certhidea fusca* Scater and Salvin, Proc. Zool. Soc. Lond., 1870, pp. 323, 324—Abingdon and Bindloe Islands (type, from Abingdon, in British Museum); Scater, Cat. Bds. Brit. Mus., 11, p. 28, 1886—same localities; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 766, 1902 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 257, 1931 (monog.).

*Range.*—Abingdon and Bindloe, Galapagos Archipelago.<sup>2</sup>

**Certhidea olivacea mentalis** Ridgway.<sup>3</sup> LEAD-COLORED CERTHIDEA.

*Certhidea mentalis* Ridgway, Proc. U. S. Nat. Mus., 17, p. 359, 1894—Tower Island (type in coll. of G. Baur, afterwards in Tring Collection, now in the American Museum of Natural History, New York); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 766, 1902—Tower (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 260, 1931—Tower (monog.).

*Certhidea olivacea mentalis* Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 61, 1931—Tower.

*Range.*—Tower Island, Galapagos Archipelago.

**Certhidea olivacea olivacea** Gould. OLIVACEOUS CERTHIDEA.

*Certhidea olivacea* Gould, Proc. Zool. Soc. Lond., 5, p. 7, Oct. 3, 1837—Galapagos Islands=James Island (cotypes now in British Museum); idem, in Darwin, Zool. Beagle, 3, Birds, p. 106, pl. 44, 1841—part, James; Scater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 323—Indefatigable; Scater, Cat. Bds. Brit. Mus., 11, p. 28, 1886—part, James and Indefatigable; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 763, 1902 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 254, 1931—James, Jervis, Indefatigable, Seymour, Duncan, Albemarle, and Narborough (monog.).

<sup>1</sup> *Certhidea olivacea becki* Rothschild, the darkest and most olivaceous of all the races, is remarkably similar to *C. o. ridgwayi*, from Charles Island, at the opposite end of the Archipelago, but is somewhat darker with even less, in fact hardly any, traces of the tawny gular area. Like Mr. Swarth, I am unable to appreciate any difference between five specimens from Wenman and three from Culpepper (*drownei*).

<sup>2</sup> Five specimens each from Abingdon and Bindloe examined.

<sup>3</sup> *Certhidea olivacea mentalis* is very close to *C. o. fusca*, but of a more uniform lead-gray, particularly below. Five specimens examined.

*Certhidea olivacea olivacea* Rothschild and Hartert, Nov. Zool., **6**, p. 148, 1899 (crit.); Wetmore, Proc. U. S. Nat. Mus., **79**, art. 10, p. 60, 1931—Indefatigable.

*Certhidea salvini* Ridgway, Proc. U. S. Nat. Mus., **17**, p. 358, 1894—Indefatigable Island (type in coll. of G. Baur, now with the Tring Collection in the American Museum of Natural History, New York); idem, l.c., **19**, p. 500, 1897 (monog.).

*Certhidea albemarlei* Ridgway, Proc. U. S. Nat. Mus., **17**, p. 360, 1894—Albemarle Island (type in coll. of G. Baur, now with the Tring Collection in the American Museum of Natural History, New York); idem, l.c., **19**, p. 500, 1897 (monog.).

*Range*.—James, Jervis, Duncan, Indefatigable, Seymour, Albemarle, and Narborough Islands, Galapagos Archipelago.<sup>1</sup>

***Certhidea olivacea ridgwayi* Rothschild and Hartert.<sup>2</sup> RIDGWAY'S CERTHIDEA.**

*Certhidea olivacea ridgwayi* Rothschild and Hartert, Nov. Zool., **6**, p. 149, 1899—Charles Island (type in Tring Collection, now in the American Museum of Natural History, New York); Snodgrass and Heller, Proc. Wash. Acad. Sci., **5**, p. 352, 1904—Charles (crit.).

*Certhidea ridgwayi* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 2, p. 765, 1902—Charles (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., **18**, p. 261, 1931—Charles (monog.).

*Range*.—Charles Island, Galapagos Archipelago.

***Certhidea olivacea luteola* Ridgway.<sup>3</sup> YELLOWISH CERTHIDEA.**

*Certhidea luteola* Ridgway, Proc. U. S. Nat. Mus., **17**, p. 360, 1894—Chatham Island (type in coll. of G. Baur, afterwards in Tring Collection, now in the American Museum of Natural History, New York); idem, l.c., **19**, p. 501, 1897—Chatham (monog.); idem, Bull. U. S. Nat. Mus., **50**, Part 2, p. 764, 1902—Chatham (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., **18**, p. 263, 1931—Chatham (monog.).

<sup>1</sup>As has been explained by Swarth, James Island must be considered as type locality. After studying some forty specimens, we are in agreement with this author that subdivision of this form is not warranted, although birds from Albemarle (*albemarlei*) and Indefatigable (*salvini*) show certain average characters in opposition to those from James.

<sup>2</sup>*Certhidea olivacea ridgwayi* Rothschild and Hartert is very similar to *C. o. olivacea*, but in the male sex more grayish above and less yellowish below with the cinnamon-tawny area paler, more dilute, and less extensive. The juvenile plumage is very different in being heavily streaked on the under, faintly streaked on the upper parts. The streaked condition of the young, taken in conjunction with the somewhat stouter bill of this form, affords another point of evidence for the close relationship between *Certhidea* and *Camarhynchus*.

Seven specimens examined.

<sup>3</sup>*Certhidea olivacea luteola* Ridgway: Generally similar to *C. o. olivacea*, but brighter olivaceous above and brighter yellow below without any, or at best a faint suggestion of, rufous color on the throat in the male sex.

Five specimens examined.

*Certhidea olivacea* (not of Gould) Sclater, Cat. Bds. Brit. Mus., 11, p. 28, 1886—part, Chatham Island.

*Certhidea olivacea luteola* Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 61, 1931—Chatham.

*Range*.—Chatham Island, Galapagos Archipelago.

***Certhidea olivacea bifasciata* Ridgway.<sup>1</sup> BARRINGTON ISLAND  
CERTHIDEA.**

*Certhidea bifasciata* Ridgway, Proc. U. S. Nat. Mus., 17, p. 359, 1894—Barrington Island (type in coll. of G. Baur, now with the Tring Collection in the American Museum of Natural History, New York); idem, l.c., 19, p. 504, 1897 (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 768, 1902 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 265, 1931 (monog.).

*Certhidea cinerascens bifasciata* Rothschild and Hartert, Nov. Zool., 6, p. 151, 1899 (crit.); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 356, 1904 (crit.); Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 60, 1931—Barrington.

*Range*.—Barrington Island, Galapagos Archipelago.

***Certhidea olivacea cinerascens* Ridgway.<sup>2</sup> ASHY CERTHIDEA.**

*Certhidea cinerascens* Ridgway, Proc. U. S. Nat. Mus., 12, "1889," p. 105, pub. Feb. 5, 1890—Hood Island (type in U. S. National Museum); idem, l.c., 19, p. 503, 1897 (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 768, 1902 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 264, 1931 (monog.).

*Certhidea cinerascens cinerascens* Rothschild and Hartert, Nov. Zool., 6, p. 151, 1899 (crit.); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 354, 1904 (crit.); Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 60, 1931—Hood Island.

*Range*. Hood and Gardner-near-Hood Islands, in the Galapagos Archipelago.

**Genus PINAROLOXIAS Sharpe**

*Pinaroloxias* Sharpe, Cat. Bds. Brit. Mus., 10, p. 52, 1885—type, by monotypy, *Cactornis inornata* Gould.

*Cocornis* Townsend, Bull. Mus. Comp. Zool., 27, p. 123, July, 1895—type, by monotypy, *Cocornis agassizi* Townsend.

<sup>1</sup> *Certhidea olivacea bifasciata* Ridgway comes very close to *C. o. cinerascens*, but is even paler, with more purely gray upper, and whiter under parts. Three specimens examined.

<sup>2</sup> *Certhidea olivacea cinerascens* Ridgway is strikingly similar to *C. o. fusca*, of Abingdon and Bindloe Islands, as has been pointed out by Swarth. The close resemblance of the inhabitants of so widely remote islands, which can be explained only as parallel development under similar environmental influence, seems to indicate that the best course is to treat all *Certhideas* as representatives of a single specific entity.



**\*Pinaroloxias inornata** (Gould).<sup>1</sup> COCOS ISLAND FINCH.

*Cactornis inornata* Gould, Proc. Zool. Soc. Lond., 11, p. 104, Dec., 1843—  
 "Bow Island, Low Archipelago, Polynesia," errore=Cocos Island (descr.  
 of female or young male; type in coll. of Zoological Society of London,  
 now in British Museum); idem, Zool. Voy. Sulphur, p. 42, pl. 25, 1844  
 —"Bow Island."

[Genus?] *inornata* Salvin, Trans. Zool. Soc. Lond., 9, p. 485, 1876 (crit.).

*Pinaroloxias inornata* Sharpe, Cat. Bds. Brit. Mus., 10, p. 52, 1885—  
 "Bow Island"; Richmon, Proc. Biol. Soc. Wash., 15, p. 247, 1902—Cocos  
 Island (crit.); Carriker, Ann. Carnegie Mus., 6, p. 894, 1910—Cocos  
 Island; Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 242, 1919—Cocos Island  
 (habits); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 268, 1931—Cocos  
 Island (monog.); Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 61,  
 1931—Cocos Island (habits).

*Cocornis agassizi* Townsend, Bull. Mus. Comp. Zool., 27, p. 123, col. pl.,  
 July, 1895—Cocos Island (descr. of adult male; type in U. S. National  
 Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 516, 1902—  
 Cocos Island (monog.); Snodgrass and Heller, Proc. Wash. Acad. Sci.,  
 4, p. 518, 1902—Cocos Island (plumages).

*Range*.—Cocos Island.

1: Cocos Island, 1.

## Subfamily FRINGILLINAE. Finches

## Genus FRINGILLA Linnaeus

*Fringilla* Linnaeus, Syst. Nat., 10th ed., 1, p. 179, 1758—type, by tautonymy,  
 "*Fringilla*" = *Fringilla coelebs* Linnaeus.

**Fringilla montifringilla** Linnaeus. BRAMBLING.

*Fringilla Montifringilla* Linnaeus, Syst. Nat., 10th ed., 1, p. 179, 1759—  
 "in Europa," restricted type locality, Sweden; Hanna, Auk, 33, p. 400,  
 1916—Northeast Point, St. Paul Island, Pribilof Islands, Alaska.

*Range*.—Breeds in Subarctic regions of Scandinavia, Russia, and  
 Asia; winters in central and southern Europe and parts of Asia.  
 Accidental on St. Paul Island, Pribilof Islands, Alaska (Northeast  
 Point, October 25, 1914).

Subfamily CARDUELINAE. Purple Finches,  
Goldfinches, and Allies

## Genus COCCOTHRAUSTES Brisson

*Coccothraustes* Brisson, Orn., 1, p. 36; 3, p. 218, 1760—type, by tautonymy,  
*Coccothraustes* Brisson = *Loxia Coccothraustes* Linnaeus.

<sup>1</sup> *Pinaroloxias inornata* (Gould), based on a female or young individual, was  
 shown by Richmond to be the same as *Cocornis agassizi*. The species is exhaus-  
 tively treated by Swarth in his admirable monograph of the Avifauna of the  
 Galapagos.

**Coccothraustes coccothraustes japonicus** Temminck and Schlegel. JAPANESE HAWFINCH.

*Coccothraustes vulgaris japonicus* Temminck and Schlegel, in Siebold, Faun. Japon., Aves, p. 90, pl. 51, 1850—Japan (type in Leyden Museum).

*Coccothraustes coccothraustes japonicus* Evermann, Auk, 30, p. 18, 1913—St. Paul Island, Pribilof Islands, Alaska; Hartert, Nov. Zool., 27, p. 157, 1920—Bering Island (May 24).

*Range*.—Breeds in eastern Siberia, Japan, and adjacent parts of Manchuria and China; winters south to southern China. Accidental on St. Paul Island, Pribilof Islands, Alaska (November 1, 1911).

Genus **HESPERIPHONA** Bonaparte<sup>1</sup>

*Hesperiphona* Bonaparte, Compt. Rend. Acad. Sci. Paris, 31, No. 12 (séance du 16 sept.), p. 424, 1850—type, by orig. desig., *Fringilla vespertina* Cooper.

*Hesperophona* Coues, Bull. Nutt. Orn. Cl., 7, p. 250, 1882 (emendation).

**\*Hesperiphona vespertina vespertina** (Cooper). EASTERN EVENING GROSBEAK.

*Fringilla vespertina* Cooper, Ann. Lyc. Nat. Hist. N. Y., 1, (2), p. 220, 1825—Sault Sainte Marie, Michigan (type in coll. of the Lyceum of Natural History, New York).

*Loxia Bonapartei* (Lesson MS.) Férussac, Bull. Sci. Nat. et Géol., 26, p. 190, Aug., 1831—"l'Amérique" (descr. of female; location of type not stated).

*Coccothraustes bonapartei* Lesson, Illust. Zool., pl. 31, 1833—"America borealis, in insula dicta Melville."

*Hesperiphona vespertina* Sharpe, Cat. Bds. Brit. Mus., 12, p. 32, 1888—North America (in part).

*Hesperiphona vespertina vespertina* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 39, 1901 (monog., full bibliog.); Preble, N. Amer. Faun., 27, p. 413, 1908—Alberta; Grinnell, Condor, 19, p. 19, 1917 (crit., range).

*Range*.—Breeds in western Alberta east to northern Michigan; reported once at Woodstock, Vermont; winters in the interior of North America, south of the Saskatchewan and east of the Rocky Mountains, and irregularly to Quebec, New England, New York, and Pennsylvania, and south sporadically to Missouri, Kentucky, Ohio, Maryland, the District of Columbia, Delaware, and New Jersey.

20: Alberta (Red Deer, 3); Ontario (Toronto, 2); Massachusetts (Ayer, 1); Minnesota (Lake Minnetonka, 1; Minneapolis, 2); Wisconsin (Springwater, Waushara County, 1; Beaver Dam, 2; Viroqua, 2; Milton, 1); Illinois (Highland Park, 2; Chicago, 1; Macomb, 1); Iowa (New Oregon, 1).

<sup>1</sup> About the affinities of this genus, cf. Sushkin, Auk, 42, pp. 256-259, 1925.

**\*Hesperiphona vespertina brooksi** Grinnell.<sup>1</sup> WESTERN EVENING GROSBEAK.

*Hesperiphona vespertina brooksi* Grinnell, Condor, 19, p. 20, Jan., 1917—Okanagan, British Columbia (type in Museum of Vertebrate Zoology, Berkeley); Swarth, Univ. Calif. Pub. Zool., 24, p. 349, 1924—near Hazelton, Skeena region, British Columbia; Grinnell, Dixon, and Linsdale, l.c., 35, p. 394, 1930—Lassen Peak region, California (crit.).

*Hesperiphona vespertina californica* Grinnell, Condor, 19, p. 20, Jan., 1917—Crane Flat, Mariposa County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Hesperiphona vespertina warreni* Grinnell, Condor, 19, p. 21, Jan., 1917—Bear Creek, near Colorado Springs, Colorado (type in Colorado College Museum, Colorado Springs).

*Hesperiphona vespertina* (not *Fringilla vespertina* Cooper) Sharpe, Cat. Bds. Brit. Mus., 12, p. 33, 1888—part, spec. a-e, British Columbia and Oregon (Linkville, Fort Klamath).

*Hesperiphona vespertina montana* (not of Ridgway, 1874) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 41, 1901 (monog., full bibliog.; excl. of "northern Mexico").

*Coccothraustes vespertina montana* Mearns, Auk, 7, p. 246, 1890—part, Rocky Mountains.

*Range.*—Breeds in the Canadian zone in the mountains from central British Columbia and Montana south to the central Sierra Nevada of California, and mountains of New Mexico and northern Arizona; winters irregularly in the lowlands of its breeding area and south to southern California.

16: British Columbia (Vancouver Island, 1; Okanagan Landing, 3); Colorado (El Paso County, 1); California (Prattville, Plumas County, 1; Chaparral, Butte County, 4; Grass Valley, 1; San José, 1); Utah (Ogden, 2); South Dakota (Deadwood, 1); New Mexico (Las Vegas, 1).

**\*Hesperiphona vespertina montana** Ridgway.<sup>2</sup> MEXICAN EVENING GROSBEAK.

<sup>1</sup> *Hesperiphona vespertina brooksi* Grinnell: Bill longer and relatively slenderer than in the nominate race; coloration of male darker than in the two other forms, line of demarcation between black cap and hindneck not sharply defined; female likewise darker, more sooty on top of head and back, and darker brown beneath.

Grinnell, Dixon, and Linsdale have shown *H. v. californica* to be untenable, and in the absence of breeding material from Colorado we follow the A. O. U. Check List in synonymizing *H. v. warreni* with the present form.

<sup>2</sup> *Hesperiphona vespertina montana* Ridgway: Nearest to *H. v. brooksi*, but bill much slenderer; coloration of males lighter with yellow frontal band narrower; female browner than *vespertina* and less sooty than *brooksi*.

Birds from Arizona seem to be identical with one from southern Mexico (Orizaba). As has been demonstrated by Grinnell, the type of *H. v. montana* is from Mirador, Vera Cruz, and not from Cantonment Burgwin, New Mexico, *C. v. mexicanus* thus becoming a synonym.

*Hesperiphona vespertina montana* Ridgway, in Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 1, p. 449, pl. 22, fig. 4, 1874—"Guatemala, Mexico, and the southern Rocky Mountains" (type, from Mexico=Mirador, Vera Cruz, in U. S. National Museum; cf. Grinnell, Condor, 19, p. 18, 1917); Grinnell, Condor, 19, p. 20, 1917--Mexico (Mirador, Las Vegas) and Arizona (Huachuca and Chiricahua Mountains) (crit.); van Rossem, Bull. Mus. Comp. Zool., 77, p. 481, 1934--Jesus Maria, Chihuahua, Mexico (Sept. 1).

*Coccothraustes vespertinus mexicanus* Chapman, Auk, 14, p. 311, 1897--Las Vegas, Vera Cruz, Mexico (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 10, p. 42, 1898--Las Vegas.

*Hesperiphona vespertina* (not *Fringilla vespertina* Cooper) Sumichrast, Mem. Bost. Soc. N. H., 1, p. 550, 1869--pine woods of Monte Alto, twelve leagues from Mexico City; Sharpe, Cat. Bds. Brit. Mus., 12, p. 32, 1888--part, spec. f-l, Vera Cruz, Mexico.

*Coccothraustes vespertinus* Sclater, Proc. Zool. Soc. Lond., 28, p. 251, 1860--Orizaba, Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 426, 1886--part, Mexico (Monte Alto, Orizaba).

*Coccothraustes vespertina montana* Mearns, Auk, 7, p. 246, 1890--part, Mexico (Valley of Mexico, Mirador).

*Hesperiphona vespertina mexicana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 43, 1901--southern Mexico (monog.).

**Range.**--Southern Arizona (Huachuca and Chiricahua Mountains) and south in the mountains to Mexico (Monte Alto), Vera Cruz (Mirador, Las Vegas), Puebla (Chalchicomula), and Oaxaca (Sierra San Felipe).

9: Arizona (Huachuca Mountains, 1); Mexico (40 miles southwest of Miñaca, Chihuahua, 8).

### ***Hesperiphona abeillei pallida* Nelson.<sup>1</sup> CHIHUAHUA GROSBEAK.**

*Hesperiphona abeillei pallida* Nelson, Proc. Biol. Soc. Wash., 41, p. 155, 1928--Jesus Maria, Chihuahua (type in Museum of Comparative Zoology, Cambridge, Mass.); van Rossem, Bull. Mus. Comp. Zool., 77, p. 481, 1934--Jesus Maria.

**Range.**--Mountains of northwestern Mexico, in State of Chihuahua (Jesus Maria).

### ***Hesperiphona abeillei abeillei* (Lesson). ABEILLÉ'S GROSBEAK.**

*Guiraca abeillei* Lesson, Rev. Zool., 2, p. 41, 1839--Mexico (type in coll. of Dr. Abeillé, Bordeaux).

<sup>1</sup> *Hesperiphona abeillei pallida* Nelson: Adult female similar to *H. a. abeillei*, but much paler and grayer; upper parts dull grayish brown with only a trace of olive suffusion; under surface nearly uniform pale grayish brown with the buffy brownish shade but slightly suggested and without any greenish yellow admixture on the breast. Wing, 107; tail, 63.

This form is known from a single female taken by McLeod in Chihuahua in June, 1893.

*Hesperiphona abeillii* Bonaparte, Cons. Gen. Av., 1, (2), p. 505, 1850—Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 550, 1869—Orizaba, Vera Cruz; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 44, 1901—part, highlands of southern Mexico (states of Vera Cruz, Puebla, and Mexico).

*Coccothraustes maculipennis* Sclater, Proc. Zool. Soc. Lond., 28, p. 251, pl. 163, 1860—Orizaba, Vera Cruz, Mexico (descr. of female; type in coll. of P. L. Sclater, now in British Museum).

*Coccothraustes abeillii* Sclater, Proc. Zool. Soc. Lond., 27, p. 365, 1859—vicinity of Jalapa, Mexico.

*Coccothraustes abeillaei* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 426, 1886—part, Mexico (Orizaba, Jalapa); Chapman, Bull. Amer. Mus. N. H., 10, p. 30, 1898—Jalapa, Vera Cruz (habits).

*Hesperiphona abeillaei* Sharpe, Cat. Bds. Brit. Mus., 12, p. 34, 1888—part, spec. a-f, Mexico (near City of Mexico, Jalapa, Vera Cruz).

*Coccothraustes abeillei* Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Coatepec, Oaxaca.

**Range.**—Highlands of southeastern Mexico, in Vera Cruz (Orizaba, Jalapa), Puebla (Huachinango), and Oaxaca (Coatepec).

**\**Hesperiphona abeillei cobanensis* Nelson.<sup>1</sup> GUATEMALAN GROSBEAK.**

*Hesperiphona abeillii cobanensis* Nelson, Proc. Biol. Soc. Wash., 41, p. 155, 1928—Coban, Vera Paz, Guatemala (type in U. S. National Museum).

*Coccothraustes abeillii* (not *Guiraca abeillei* Lesson) Sclater and Salvin, Ibis, 1859, p. 19—Guatemala; Salvin, Ibis, 1861, p. 352—Coban and Dueñas, Guatemala (sexual differences).

*Coccothraustes abeillaei* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 426, 1886—part, Guatemala (Volcan de Fuego, Chilasco, Coban).

*Hesperiphona abeillaei* Sharpe, Cat. Bds. Brit. Mus., 12, p. 34, 1880—part, spec. g-m, Guatemala (Coban, San Gerónimo, Volcan de Fuego).

*Hesperiphona abeillii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 44, 1901—part, Guatemala (Dueñas, Coban, San Gerónimo, Volcan de Fuego).

*Coccothraustes maculipennis* (not of Sclater, 1860) Sclater and Salvin, Ibis, 1860, p. 398—Alotenango, Guatemala; Salvin, Ibis, 1861, p. 352—Coban, Guatemala; idem, Ibis, 1866, p. 206—Guatemala.

*Hesperiphona abeillii pallida* (not of Nelson) Griscom, Bull. Amer. Mus. N. H., 64, p. 346, 1932—Guatemala; idem, Ibis, 1935, p. 552 (crit.).

**Range.**—Highlands of Guatemala (San Gerónimo and Coban, Alta Vera Paz; Alotenango and Dueñas, Sacatepéquez).

2: Guatemala (Volcan Tajumulco, San Marcos, 2).

<sup>1</sup> *Hesperiphona abeillei cobanensis* Nelson: Similar to *H. a. abeillei*, but adult male decidedly clearer (brighter) yellow, especially on the breast; female perhaps more strongly suffused with buffy brown underneath; bill somewhat larger.

Seven birds (male and female) compared with six from southeastern Mexico.

## Genus PYRRHULA Brisson

*Pyrrhula* Brisson, Orn., 1, p. 36; 3, p. 308, 1760—by tautonymy, "*Pyrrhula*"  
Brisson=*Loxia pyrrhula* Linnaeus.

***Pyrrhula pyrrhula cassini* (Baird).<sup>1</sup> CASSIN'S BULLFINCH.**

*Pyrrhula coccinea* var. *cassini* Baird, Trans. Chicago Acad. Sci., 1, p. 316, pl. 29, fig. 1, 1869—Nulato, Alaska (type in U. S. National Museum; descr. of female).

*Pyrrhula kamtschatica* Taczanowski, Bull. Soc. Zool. France, 7, p. 395, 1882—Kamchatka (type in Warsaw Museum; cf. Sztolcman and Domaniowski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 174, 1927).

*Pyrrhula cassini* Stejneger, in Turner, Contrib. Nat. Hist. Alaska, p. 169, pl. 7 (fig. of type), 1886—Nulato, Alaska; Stejneger, Proc. U. S. Nat. Mus., 10, p. 103, 1887—Nulato (crit. on type); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 57, 1901—part, Nulato, Alaska.

*Pyrrhula pyrrhula kamtschatica* Brooks, Bull. Mus. Comp. Zool., 59, p. 406, 1915—Copper Island (May 21, 25); Hartert, Nov. Zool., 27, p. 157, 1920—Bering and Copper Islands.

*Pyrrhula pyrrhula cassini* Swarth, Proc. Calif. Acad. Nat. Sci., (4), 17, p. 248, 1928—Nunivak Island, Alaska (crit.); idem, Pacif. Coast Avif., 22, p. 47, 1934—Nunivak Island.

**Range.**—Kamchatka, Bering and Copper Islands, northeastern Siberia. Accidental in Alaska (Nulato, Jan. 10, 1867, and Nunivak Island, Oct. 12, 13, and 16, 1927).

## Genus CARPODACUS Kaup

*Carpodacus* Kaup, Skizz. Entw.-Gesch. Eur. Thierw., p. 161, 1829<sup>2</sup>—type, by subs. desig. (Gray, App. List Gen. Bds., p. 11, 1842), *Fringilla rosea* Pallas.

*Erythrina* Brehm,<sup>3</sup> Isis, 1829, Heft 7 (July), col. 725—type, by monotypy, *Erythrina albifrons* Brehm=*Fringilla rosea* Pallas.

*Erythrothorax* Brehm, Handb. Naturg. Vög. Deutschl., p. 248, 1831—obviously proposed as a new name for *Erythrina* Brehm, previously used in Botany.

*Haemorrhous* (not of Boie, 1826) Swainson, Nat. Hist. Classif. Bds., 2, p. 295, 1837—type, by subs. desig. (Sharpe, Cat. Bds. Brit. Mus., 12, p. 387, 1888), *Fringilla purpurea* Gmelin.

*Burrica* Ridgway, Man. N. Amer. Bds., p. 390, 1887—type, by orig. desig., *Fringilla mexicana* P. L. S. Müller.

<sup>1</sup> Although the subspecific term had been applied to *P. cineracea* Cabanis, of central Siberia, by Stejneger and others, Swarth showed the type of *P. coccinea* var. *cassini* to be clearly a female of the Kamchatkan Bullfinch, which consequently takes Baird's name, *P. kamtschatica* becoming a synonym.

<sup>2</sup> The exact date of publication is not known.

<sup>3</sup> *Erythrina* Brehm (Isis, 21, col. 1276, 1828), which Stresemann (Orn. Monatsber., 30, pp. 60–61, 1922) sought to revive, is a nomen nudum under the Rules, since *E. rubrifrons* was undescribed at the time, while the second species, *E. rosea*, listed without author's name or reference, is indeterminable.

**\**Carpodacus purpureus purpureus* (Gmelin). EASTERN PURPLE FINCH.**

*Fringilla purpurea* Gmelin, Syst. Nat., 1, (2), p. 923, 1789—based mainly on "Purple Finch" Catesby, Nat. Hist. Carolina, 1, p. 41, pl. 41; "Carolina"=South Carolina (in winter).

*Carpodacus purpureus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 409, 1888 (in part).

*Carpodacus purpureus purpureus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 128, 1901 (monog., full bibliog.); Noble, Bull. Mus. Comp. Zool., 62, p. 556, 1919—Nicholsville, Newfoundland; Swarth, Univ. Calif. Pub. Zool., 24, p. 232, 1922—Telegraph Creek, Stikine region, British Columbia; idem, l.c., 24, p. 349, 1924—Hazelton and Kispiox Valley, Skeena River, British Columbia; idem, l.c., 30, p. 120, 1926—Atlin, British Columbia.

*Range*.—Breeds in North America from northwestern British Columbia, northeastern Alberta, northern Ontario (Moose Factory), southern Quebec (Gaspé Basin), and Newfoundland to North Dakota (Turtle Mountains), central Minnesota, northern Illinois, the mountains of Maryland, northern New Jersey, and New York (Long Island); winters south to the Gulf coast from Texas to Florida; accidental in Colorado.

78: Maine (Upton, 4); Massachusetts (Grantville, 1; Brookline, 1; Cambridge, 1; Dedham, 1); New York (Shelter Island, 2); Pennsylvania (Gwynedd, 1); Connecticut (East Hartford, 23); New Jersey (Englewood, 2); Minnesota (Minneapolis, 1); Wisconsin (Woodruff, Vilas County, 2; Beaver Dam, 5; Fox Lake, 1); Michigan (Kalamazoo, 1); Illinois (Beach, Lake County, 1; Deerfield, 1; Highland Park, 1; Lake Forest, 6; Thatcher Woods, Cook County, 1; Lyons, Cook County, 1; Joliet, 7; Henry, 1; Hegewisch, 1; Warsaw, 1; Mound City, 1); Indiana (Bluffton, 1); Iowa (Cedar Rapids, 4); Ohio (Columbus, 2); North Carolina (Raleigh, 2); Arkansas (Winslow, 1).

**\**Carpodacus purpureus californicus* Baird. CALIFORNIAN PURPLE FINCH.**

*Carpodacus californicus* Baird, in Baird, Cassin and Lawrence, Rep. Expl. & Surv. R. R. Pacif., 9, p. 413, 1858—"Pacific coast of United States" (type, from Fort Tejon, Kern County, California, in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 303, 1932).

*Carpodacus purpureus* (not *Fringilla purpurea* Gmelin) Sharpe, Cat. Bds. Brit. Mus., 12, p. 409, 1888—part, Vancouver to California.

*Carpodacus purpureus californicus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 130, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 10, p. 53, 1912—Vancouver Island; Grinnell, l.c., 32, p. 154, 1928—Lower California; Grinnell, Dixon and Linsdale, l.c., 35, p. 396, 1930—Lassen Peak region, California.

*Range*.—Breeds in western North America from southern British Columbia south to the Sierra Juárez, Lower California, and east to the Cascades and the Sierra Nevada; in winter south to lat. 30° 45' in Lower California and (casually) to southern Arizona.

31: Oregon (Tillamook, 2); California (McCloud, 1; San Geronimo, 1; Nicasio, 6; Sebastopol, 2; Los Baños, 1; Monterey, 4; Los Gatos, 3; Los Angeles, 2; Claremont, 2; Alhambra, 2; Palo Alto, 2; San Bernardino Mountains, 1; Riverside, 1; Altadena, 1).

**\**Carpodacus cassinii* Baird. CASSIN'S PURPLE FINCH.**

*Carpodacus cassinii* Baird, Proc. Acad. Nat. Sci. Phila., 7, No. 3, p. 119, "June" [=July 3], 1854—Camp 104, Pueblo Creek, and 75 miles west of Albuquerque, New Mexico (type, from Pueblo Creek, Arizona, in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 126, 1901 (monog., full bibliog.); Taylor, Univ. Calif. Pub. Zool., 7, p. 387, 1912—northern Nevada; Huey, Condor, 29, p. 153, 1927—Laguna Hanson, Sierra Juárez; Grinnell, Univ. Calif. Pub. Zool., 32, p. 154, 1928—San Pedro Mártir range and Sierra Juárez, Lower California; Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 323, 1929—near Patagonia, Arizona; Grinnell, Dixon, and Linsdale, Univ. Calif. Pub. Zool., 35, p. 397, 1930—Lassen Peak region, California.

*Carpodacus cassinii* Sharpe, Cat. Bds. Brit. Mus., 12, p. 412, 1888 (monog.).

*Range*.—Breeds in the mountains of western North America from southern British Columbia, northwestern Montana, and northeastern Wyoming to northern Lower California (Sierra San Pedro Mártir), central Arizona, and northern New Mexico; winters in the lowlands of its breeding range south through Arizona and the Mexican plateau to Vera Cruz (Mirador, Mount Orizaba) and the Valley of Mexico.

27: British Columbia (Okanagan, 5); Montana (Columbia Falls, 1); California (Chaparral, Butte County, 1; San Bernardino, 1; Big Bear Valley, 6; northern Pacific, 1; Susanville, 1); Colorado (Windsor, 1; Fort Lyon, 5); Arizona (Huachuca Mountains, 2); Mexico (30 miles west of Miñaca, Chihuahua, 3).

**\**Carpodacus mexicanus frontalis* (Say). COMMON HOUSE FINCH.**

*Fringilla frontalis* Say, in Long, Exp. Rocky Mts., 2, p. 40 (note), 1823—Arkansas River near the mountains—near Pueblo, Colorado (type lost, formerly in Peale's Museum).

(?) *Pyrrhula inornata* Vigors, Zool. Voy. Blossom, p. 20, 1829—no locality indicated, probably Monterey, California (type lost; cf. Sclater, in Sharpe, Cat. Bds. Brit. Mus., 12, p. 139, 1888, and Grinnell, Univ. Calif. Pub. Zool., 38, p. 303, 1932;=female?).



*Carpodacus obscurus* McCall, Proc. Acad. Nat. Sci. Phila., 5, p. 220, 1851—near Santa Fé, New Mexico (type in coll. of the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 21, 1899; descr. of female).

*Carpodacus familiaris* McCall, Proc. Acad. Nat. Sci. Phila., 6, p. 61, 1852—Santa Fé, New Mexico (type lost; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 21, 1899).

*Carpodacus mexicanus smithi* Figgins, Proc. Colo. Mus. N. H., 9, No. 1, p. 2 (in text), April 22, 1930—near Aurora, Arapahoe County, Colorado (type in Colorado Museum of Natural History, Denver).

[*Carpodacus mexicanus*] *sayi* Figgins, Proc. Colo. Mus. N. H., 9, No. 1, p. 3, 1930—new name for *Fringilla frontalis* Say.

[*Carpodacus frontalis*]  $\beta$  *Carpodacus rhodocolpus* (not of Cabanis) Sharpe, Cat. Bds. Brit. Mus., 12, p. 422, 1888—California.

*Carpodacus mexicanus frontalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 137, 1901 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 154, 1928—northern Lower California, and Todos Santos and Cedros Islands (crit.); Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 323, 1929—Patagonia, southern Arizona (breeding); van Rossem, Trans. San Diego Soc. N. H., 6, p. 295, 1931—Sonora (El Doctór, Sáríc [May to Sept.], Obregón, Tésia, Chinobampo, Magdalena, San Pedro Mártir, San Estéban, and Tiburón Islands); idem, l.c., 7, p. 143, 1932—Tiburón Island, Sonora; idem, Bull. Mus. Comp. Zool., 77, p. 481, 1934—Sonora (Guaymas, Nacozari, Oposura, Carmen) and Chihuahua.

*Range*.—Western North America from Oregon, Idaho, and northern Wyoming south through California and New Mexico to the northern half of Lower California, northern Sonora, and (?) northern Chihuahua, and east to the edge of the Great Plains (western Kansas and middle Texas).<sup>1</sup> Introduced in the Hawaiian Islands.<sup>2</sup>

129: California (Nicasio, 3; Placer County, 1; Colusa, 1; San Geronimo, 2; Alameda, 1; Fairfax, 1; San Francisco County, 1; San Francisco, 1; San Leandro, 1; Hayward, 4; Monterey, 12; Pacific Grove, 1; Sebastopol, 1; Los Gatos, 1; Corona, 4; Piute Mountains, Kern County, 1; Los Angeles County, 1; Palo Alto, 5; San Bernardino, 1; San Pedro, 6; Santa Ysabel, San Diego County, 1; San Diego, 3); Nevada (Truckee River, 1); Colorado (Fort Lyon, 2);

<sup>1</sup> Figgins has attempted to subdivide the Common House Finch into three races: (a) *C. m. smithi*, "east slope of the Continental Divide north of the Arkansas River"; (b) *C. m. obscurus*, "southeastern Colorado, New Mexico, Kansas, Oklahoma, Texas, and perhaps eastern Arizona"; (c) *C. m. frontalis*, "southern Colorado and westward." The matter requires, however, more extensive study with adequate material.

<sup>2</sup> For the Hawaiian birds the name *C. mutans* has been proposed by Grinnell (Auk, 29, p. 24, 1912). Cf. also Grinnell, Univ. Calif. Pub. Zool., 7, pp. 179-195, 1911; Phillips, Auk, 29, pp. 336-338; Grinnell, l.c., p. 543, 1912.

Arizona (Phoenix, 11; Tucson, 6; Carr Canyon, Huachuca Mountains, 1; Huachuca Mountains, 7; Fort Verde, 2; Fort Grant, 2; Calabasas, 21); New Mexico (Deming, 22); Mexico (Bustillos, Chihuahua, 1).

**\**Carpodacus mexicanus ruberrimus* Ridgway. SAN LUCAS HOUSE FINCH.**

*Carpodacus frontalis ruberrimus* Ridgway, Man. N. Amer. Bds., p. 391 (note), 1887—"Cape St. Lucas" (type, from La Paz, Lower California, in U. S. National Museum).

*Carpodacus mexicanus ruberrimus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 136, 1901—southern Lower California (monog., full bibliog.); Brewster, Bull. Mus. Comp. Zool., 41, p. 133, 1902—Cape region of Lower California; Grinnell, Univ. Calif. Pub. Zool., 32, p. 155, 1928—Lower California.

*Range*.—Southern half of Lower California (north to about lat. 28°).

9: Lower California (La Paz, 2; Todos Santos, 3; San José del Cabo, 3; unspecified, 1).

**\**Carpodacus mexicanus clementis* Mearns. SAN CLEMENTE HOUSE FINCH.**

*Carpodacus clementis* Mearns, Auk, 15, p. 258, July, 1898—San Clemente Island, California (type in U. S. National Museum); Grinnell and Daggett, Auk, 20, p. 33, 1903—Los Coronados Islands.

*Carpodacus mexicanus clementis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 140, 1901 (monog., bibliog.); van Rossem, Condor, 27, p. 176, 1925 (range, crit.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 155, 1928—Los Coronados Islands (crit.).

*Range*.—San Clemente, Santa Catalina, and Santa Barbara Islands, California, and Los Coronados Islands, Lower California.<sup>1</sup>

12: California (San Clemente Island, 11; Santa Cruz Island, 1).

***Carpodacus mexicanus mcgregori* Anthony.<sup>2</sup> MCGREGOR'S HOUSE FINCH.**

*Carpodacus mcgregori* Anthony, Auk, 14, p. 165, April, 1897—San Benito Island, Lower California (type in coll. of A. W. Anthony, now in Carnegie Museum; cf. Todd, Ann. Carnegie Mus., 18, p. 362, 1928); McGregor, Auk, 15, p. 265, 1898 (descr. of young); Ridgway, Bull. U. S. Nat. Mus.,

<sup>1</sup> According to Grinnell (l.c., pp. 154, 155, 1928), birds from Todos Santos and Cedros Islands, which have been referred here by various authors, do not belong with *C. m. clementis*.

<sup>2</sup> There seems to be no valid reason for maintaining specific distinctness of these insular forms, which are the only ones breeding on the respective islands, and whose characters are merely differences of degree.

50, Part 1, p. 141, 1901 (monog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 155, 1928—San Benito Islands and Cedros Island.

*Range.*—San Benito Islands, Lower California; casual on Cedros Island.

**\**Carpodacus mexicanus amplus* Ridgway.<sup>1</sup> GUADALUPE HOUSE FINCH.**

*Carpodacus amplus* Ridgway, Bull. U. S. Geol. & Geog. Surv. Terr., 2, No. 2, p. 187, 1876—Guadalupe Island, Lower California (type in U. S. National Museum); Bryant, Bull. Calif. Acad. Sci., 2, p. 293, 1887—Guadalupe (habits, nest, and eggs); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 142, 1901 (monog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 157, 1928—Guadalupe Island.

*Range.*—Guadalupe Island, Lower California.

5: Lower California (Guadalupe Island, 5).

***Carpodacus mexicanus potosinus* Griscom.<sup>2</sup> POTOSI HOUSE FINCH.**

*Carpodacus mexicanus potosinus* Griscom, Amer. Mus. Novit., 293, p. 5, Jan. 12, 1928—San Luis Potosí, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Range.*—Tableland of Mexico, in State of San Luis Potosí.

***Carpodacus mexicanus nigrescens* Griscom.<sup>3</sup> TAMAULIPAS HOUSE FINCH.**

*Carpodacus mexicanus nigrescens* Griscom, Amer. Mus. Novit., 293, p. 5, Jan. 12, 1928—Miquihuana, Tamaulipas, Mexico (type in the American Museum of Natural History, New York).

*Carpodacus mexicanus mexicanus* (not *Fringilla mexicana* Müller) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 131, 1901—part, Tamaulipas (Miquihuana).

*Carpodacus mexicanus frontalis* (not *Fringilla frontalis* Say) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 137, 1901—part, Tamaulipas and (?) Nuevo León (Monterrey).

*Range.*—Mountains of northeastern Mexico, in State of Tamaulipas (Miquihuana), possibly also in Nuevo León (Monterrey).

<sup>1</sup> See footnote 2 on page 155.

<sup>2</sup> *Carpodacus mexicanus potosinus* Griscom: Similar to "*C. m. rhodocolpus*" [sc. *sonoriensis*, from central western Mexico], but adult male in breeding plumage darker, the red being more crimson, less scarlet; brown of upper parts and brown streaking below darker; female darker above and more heavily striped underneath. According to the describer, in darkness of coloration this form is intermediate between *sonoriensis* and *nigrescens*. Based on a large series from San Luis Potosí.

<sup>3</sup> *Carpodacus mexicanus nigrescens* Griscom: Very near to *C. m. potosinus*, but even darker throughout, the red areas slightly so; the upper parts, primaries, and streaks below dark fuscous. Based, as it is, on only four July specimens from Miquihuana, this form needs corroboration by more satisfactory material.

**\**Carpodacus mexicanus sonoriensis* Ridgway.<sup>1</sup> SONORAN HOUSE FINCH.**

*Carpodacus mexicanus sonoriensis* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 135, after July 1, 1901—no type nor type locality indicated (type, from Alamos, Sonora, in U. S. National Museum; cf. van Rossem, Trans. San Diego Soc. N. H., **6**, p. 295, 1931); van Rossem, Trans. San Diego Soc. N. H., **6**, p. 295, 1931—Sonora (Pesqueira, Tecoripa, San Javier, Obregón, Tésia, Chinobampo, Guaymas, Tóbari Bay, Agiobampo) (crit.); idem, Bull. Mus. Comp. Zool., **77**, p. 481, 1934—Guaymas, Alamos, and Durazno, Sonora.

*Carpodacus mexicanus rhodocolpus* (not of Cabanis) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 134, 1901—Jalisco to Colima and Michoacan (Lake Patzcuaro); Miller, Bull. Amer. Mus. N. H., **22**, p. 175, 1906—Las Bocas, La Cienega de las Vacas, and Rio Sestin, Durango (breeding).

*Range*.—Western Mexico, from Sonora south to Colima and western Michoacan (Lake Patzcuaro).

6: Mexico (Tuxpan, Jalisco, 6).

***Carpodacus mexicanus mexicanus* (P. L. S. Müller). MEXICAN HOUSE FINCH.**

*Fringilla mexicana* P. L. S. Müller, Natursyst., Suppl., p. 165, 1776—based on "Bruant, du Mexique" Daubenton, Pl. Enl., pl. 386, fig. 1.

*Fringilla haemorrhoa* Lichtenstein, Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, 1830—Mexico (type, from Mexico City, in Berlin Museum; cf. van Rossem, Bull. Mus. Comp. Zool., **77**, p. 421, 1934); Cabanis, Journ. Orn., **11**, p. 56, 1863 (reprint).

*Pyrrhula cruentata* Lesson, Rev. Zool., **2**, p. 101, 1839—Mexico (type in Abeillé Collection, Bordeaux).

*Carpodacus rhodocolpus* Cabanis, Mus. Hein., **1**, p. 166, Oct., 1851—Mexico (type, from Cuernavaca, Morelos, in Berlin Museum; cf. van Rossem, Bull. Mus. Comp. Zool., **77**, p. 419, 1934).

*Carpodacus mexicanus* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 422, 1888—Valley of Mexico, City of Mexico, and Puebla.

*Carpodacus mexicanus mexicanus* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 131, 1901 (monog., full bibliog.); Griscom, Bull. Mus. Comp. Zool., **75**, p. 416, 1934—Chilpancingo, Guerrero (crit.).

*Range*.—Mountains of southern Mexico, in states of Hidalgo, Vera Cruz, Mexico, Tlaxcala, Puebla, Morelos, and Guerrero.

<sup>1</sup>*Carpodacus mexicanus sonoriensis* Ridgway, though very close to *C. m. ruberrimus*, is regarded by van Rossem as recognizable. The same author, furthermore, believes that, without doing violence to facts, the name *sonoriensis* could easily be stretched to cover the house finches of central western Mexico down to Colima and western Michoacan, comprising thus the two races distinguished by Ridgway under "*rhodocolpus*" and *sonoriensis*. Moore (Condor, **38**, No. 5, p. 203, Oct., 1936), however, has added another race, *C. m. rhodopnus* (type, from El Molino, 25 miles southwest of Culiacan, Sinaloa, in coll. of R. T. Moore), whose range is said to comprise the Arid Tropical zone of central Sinaloa.

**Carpodacus mexicanus roseipectus** Sharpe.<sup>1</sup> OAXACA HOUSE FINCH.

*Carpodacus roseipectus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 424, 1888—Oaxaca, southern Mexico (type in British Museum).

*Carpodacus mexicanus roseipectus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 133, 1901—Huajualpam, Oaxaca (monog.).

*Range.*—Southern extremity of Mexican tableland, in State of Oaxaca.

Genus **MELANOSPIZA** Ridgway

*Melanospiza* Ridgway, Proc. U. S. Nat. Mus., 19, p. 466 (footnote), March 15, 1897—type, by orig. desig., *Loxigilla richardsoni* Cory.

**\*Melanospiza richardsoni** (Cory). RICHARDSON'S GRASSQUIT.

*Loxigilla richardsoni* Cory, Auk, 3, p. 382, July, 1886—"mountains of" Santa Lucia, Lesser Antilles (type in coll. of C. B. Cory, now in Field Museum); idem, Ibis, 1886, p. 475—Santa Lucia; idem, Bds. W. Ind., p. 290, 1889—Santa Lucia.

*Geospiza richardsoni* Cory, Cat. W. Ind. Bds., pp. 112, 150, 1892—Santa Lucia.

*Eueltheia richardsoni* Richardson, Proc. U. S. Nat. Mus., 12, p. 129, 1890—Santa Lucia.

*Melanospiza richardsoni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 545, 1901 (monog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 545, 1928—Santa Lucia; idem, Auk, 46, p. 523, 1929—Santa Lucia (distribution, habits, descr. of female); Danforth, Monog. Univ. Puerto Rico, Ser. B, No. 3, p. 106, pl. 1 (male, female), 1935—Grande Anse and De Barra, Santa Lucia (monog.).

*Range.*—Island of Santa Lucia, Lesser Antilles.

1: Lesser Antilles (Santa Lucia, 1).

Genus **LOXIPASSER** Bryant

*Loxipasser* Bryant, Proc. Bost. Soc. N. H., 10, p. 254, 1866—type, by orig. desig., [*Spermophila*] *anoxantha* Gosse.

**\*Loxipasser anoxanthus** (Gosse). YELLOW-SHOULDERED GRASSQUIT.

*Spermophila anoxantha* Gosse, Bds. Jamaica, p. 247, 1847—Mount Edgecombe, Jamaica (cotypes now in British Museum); idem, Illust. Bds. Jamaica, pl. 62, 1849.

*Loxigilla anoxantha* Sclater, Proc. Zool. Soc. Lond., 1861, p. 74—Jamaica; idem, Cat. Coll. Amer. Bds., p. 102, 1862—Jamaica; March, Proc. Acad. Nat. Sci. Phila., 1863, p. 297—Jamaica (nest and eggs descr.); Cory, Auk, 3, p. 205, 1886 (descr.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 85, 1888—St. Anne's, Jamaica; Cory, Bds. W. Ind., p. 203, 1889 (descr.); Scott, Auk, 10, p. 180, 1893—Jamaica.

<sup>1</sup> A race of very questionable validity.

*Pyrrhulagra anoxantha* Cory, Cat. W. Ind. Bds., p. 112, 1892—Jamaica.

*Loxipasser anoxanthus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 546, 1901 (monog.); Danforth, Auk, 45, p. 480, 1928—Lumsden and Jackson Town, Jamaica.

Range.—Island of Jamaica, Greater Antilles.

7: Greater Antilles (Jamaica, 7).

### Genus LOXIGILLA Lesson<sup>1</sup>

*Loxigilla* Lesson, Traité d'Orn., p. 443, Feb., 1831—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 74, 1855), *Fringilla noctis* Linnaeus.

*Pyrrhulagra* (Schiff MS.) Bonaparte, Consp. Gen. Av., 1, (2), p. 492, end of 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 75, 1855), *Loxia portoricensis* Daudin.

*Scotospiza* Sundevall, Oefvers. Vetensk.-Akad. Handl., 26, p. 597, 1869—new name for *Pyrrhulagra* Bonaparte.

### \**Loxigilla portoricensis portoricensis* (Daudin). PORTO RICAN BULLFINCH.

*Loxia portoricensis* Daudin, Traité Elém. et Compl. d'Orn., 2, p. 411, 1800—Porto Rico (descr. of male and female; cotypes, collected by Maugé, in Paris Museum); Ledru, Voy. Iles Ténériffe, Trinité, etc., 2, p. 203, 1810—Porto Rico; Bryant, Proc. Bost. Soc. N. H., 10, p. 254, 1866—Porto Rico; Sundevall, Oefvers. Vetensk.-Akad. Handl., 26, p. 597, 1869—Porto Rico.

*Pyrrhula aurantiicollis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 4, p. 300, 1816—new name for *Loxia portoricensis* Daudin; Porto Rico and "Saint Domingue" (errore).

*Pyrrhulagra portoricensis* Gundlach, Anal. Soc. Esp. Hist. Nat., 7, p. 208, 1878—Porto Rico (Furnias, Quebradillas, between Arecibo and Utundo, Jayuya, Aguas Blancas); Cory, Cat. W. Ind. Bds., pp. 112, 149, 1892—Porto Rico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 550, 1901—Porto Rico (monog.).

*Loxigilla portoricensis* Cory, Auk, 3, p. 205, 1886—Porto Rico (descr.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 87, 1888—Porto Rico; Cory, Bds. W. Ind., p. 92, 1889 (descr.); Bowditch, Auk, 20, p. 13, 1903—Porto Rico; Wetmore, Bull. U. S. Dept. Agric., 326, p. 125, 1926—Porto Rico (habits and food); Struthers, Auk, 40, p. 478, 1923—Porto Rico; Danforth, Journ. Dept. Agric. Porto Rico, 10, p. 107, 1926—Cartagena Lagoon, Porto Rico; Wetmore, Sci. Surv. Porto Rico & Virgin Islands, 9, p. 557, 1927—Porto Rico (monog.); Beatty, Journ. Dept. Agric. Porto Rico, 15, p. 31, 1931—Guanica Lagoon, Porto Rico (nest descr.); Danforth, l.c., p. 104, 1931—Porto Rico (nest, eggs, food).

<sup>1</sup>*Loxia haitii* Ricord (Rev. Zool., 1, p. 167, 1838) was probably intended for some species of this genus, but as pointed out by Wetmore and Swales (Bull. U. S. Nat. Mus., 155, p. 436, 1931) there is no means of determining it any further, since the author refers to birds observed by him "dans toutes les Indes occidentales . . . , à la Terre-Ferme de l'Amérique espagnole, sur les bords de l'Orénoque . . . , et au continent de l'Amérique du nord, en Virginie."

*Range*.—Island of Porto Rico, Greater Antilles.

10: Greater Antilles (Porto Rico, 10).

**\**Loxigilla portoricensis grandis* Lawrence. ST. CHRISTOPHER BULLFINCH.**

*Loxigilla portoricensis* var. *grandis* Lawrence, Proc. U. S. Nat. Mus., 4, p. 204, Nov. 18, 1881—St. Christopher, Lesser Antilles (type in U. S. National Museum).

*Loxigilla portoricensis grandis* Cory, Auk, 3, p. 206, 1886—St. Christopher (descr.); idem, Bds. W. Ind., p. 93, 1889 (descr.).

*Loxigilla grandis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 87, 1888—St. Christopher Island.

*Pyrrhulagra grandis* Cory, Cat. W. Ind. Bds., pp. 112, 149, 1892—St. Christopher; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 550, 1901—St. Christopher (monog.).

*Range*.—Island of St. Christopher (St. Kitts), Lesser Antilles.

4: Lesser Antilles (St. Christopher, 4).

**\**Loxigilla violacea violacea* (Linnaeus). BAHAMAN BULLFINCH.**

*Loxia violacea* Linnaeus, Syst. Nat., 10th ed., 1, p. 176, 1758—based on "The Purple Gross-beak" Catesby, Nat. Hist. Carolina, 1, p. 40, pl. 40; Bahama Islands.

*Pyrrhula superciliosa* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 4, p. 300, 1816—new name for *Loxia violacea* Linnaeus.

*Loxia violacea*  $\beta$  *bahamensis* Ridgway, Proc. U. S. Nat. Mus., 1, p. 250, Dec. 10, 1878—Bahamas (type in U. S. National Museum).

*Loxigilla violacea* Cory, Bds. Bahamas, p. 85, 1880—Bahamas (descr.); idem, Auk, 3, p. 203, 1886—part, Bahamas; Sharpe, Cat. Bds. Brit. Mus., 12, p. 82, 1888—part, spec. k-o, Bahamas; Cory, Bds. W. Ind., p. 90, 1889—part, Bahamas; Northrop, Auk, 8, p. 70, 1891—Andros; Cory, Auk, 8, pp. 294–297, 350, 351, 1891—Bahamas (New Providence, Caicos, Inagua, Abaco, Berry Islands, Great Bahama, Eleuthera); idem, Auk, 9, pp. 48, 49, 1892—Mariguana and Inagua.

*Pyrrhulagra violacea* Ridgway, Auk, 8, pp. 334–337, 1891—Abaco, New Providence, Eleuthera, and Cat Island; Cory, Cat. W. Ind. Bds., pp. 112, 148, 1892—part, Bahamas; Bonhote, Ibis, 1899, p. 512—Nassau, New Providence; Bangs, Auk, 17, p. 293, 1900—Nassau, Current Island, Eleuthera, and Highbourne Key; Bonhote, Ibis, 1903, p. 289—New Providence and Little Abaco; Allen, Auk, 22, p. 128, 1905—New Providence and Great Abaco; Riley, Auk, 22, p. 360, 1905—New Providence, Eleuthera, Cat Island, and Long Island; idem, in Shattuck, The Bahama Islands, pp. 355, 367, 1905—Bahamas.

*Pyrrhulagra violacea violacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 551, 1901—Bahamas (monog.); Todd and Worthington, Ann. Carnegie Mus., 7, pp. 441, 464, 1911—New Providence, Great Inagua, Andros, and Abaco (crit.).

*Loxigilla noctis* (not *Fringilla noctis* Linnaeus) Cory, Bds. Bahamas, p. 87, 1880—Inagua; idem, l.c., rev. ed., unpaged interpolated leaves [p. 12], 1890—not in Bahama Islands.

*Range*.—Bahama Islands.

236: Bahama Islands (Great Bahama, 1; Abaco, 6; Berry, 5; Andros, 5; Long, 1; Nassau, 10; Eleuthera, 29; Inagua, 178; Caicos, 1).

**\**Loxigilla violacea ruficollis* (Gmelin). JAMAICAN BULLFINCH.**

*Tanagra ruficollis* Gmelin, Syst. Nat., 1, (2), p. 894, 1789—based on "Rufous-throated Tanager" Latham, Gen. Syn. Bds., 2, (1), p. 241; Jamaica (type in British Museum).

*Pyrhula robinsonii* Gosse, Bds. Jamaica, p. 259, 1847—Jamaica (partial albino).

*Pyrhula violacea* (not *Loxia violacea* Linnaeus) Gosse, Bds. Jamaica, p. 254, 1847—Jamaica; idem, Illust. Bds. Jam., pl. 66, 1849.

*Loxigilla violacea* Selater, Proc. Zool. Soc. Lond., 1861, p. 74—Jamaica; idem, Cat. Coll. Amer. Bds., p. 102, 1862—part, spec. b, c, Jamaica; March, Proc. Acad. Nat. Sci. Phila., 1863, p. 297—Jamaica (nest and eggs descr.); Cory, Auk, 3, p. 203, 1886—part, Jamaica; Sharpe, Cat. Bds. Brit. Mus., 12, p. 82, 1888—part, spec. c-i, Jamaica (St. Anne, Spanishtown, Monague); Cory, Bds. W. Ind., p. 90, 1889—part, Jamaica; Scott, Auk, 10, p. 180, 1893—Jamaica; Field, Auk, 11, p. 126, 1894—Port Henderson and Mandville, Jamaica.

*Loxia violacea a violacea* Ridgway, Proc. U. S. Nat. Mus., 1, p. 250, 1878—Jamaica (crit.).

*Pyrhulagra violacea* Cory, Cat. W. Ind. Bds., pp. 112, 148, 1892—part, Jamaica.

*Pyrhula violacea ruficollis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 552, 1901—Jamaica (monog.); Danforth, Auk, 45, p. 490, 1928—Lumsden, Jackson Town, Mandville, and Black River, Jamaica.

*Loxia rufobarbata* (not *Fringilla rufobarbata* Jacquin) Hahn, Vögel Asien, Afr., etc., Part 7, pl. 6, 1820—"East Indies" (spec. in Munich Museum examined).

*Range*.—Island of Jamaica, Greater Antilles.

17: Greater Antilles (Jamaica, 17).

**\**Loxigilla violacea affinis* (Ridgway). HISPANIOLAN BULLFINCH.**

*Pyrhulagra affinis* (Baird MS.) Ridgway, Auk, 15, p. 322, Oct., 1898—Port-au-Prince, Haiti (type in U. S. National Museum).

*Loxia violacea* (not of Linnaeus) Bryant, Proc. Bost. Soc. N. H., 11, p. 93, 1866—Port-au-Prince, Haiti.

*Loxigilla violacea* Sallé, Proc. Zool. Soc. Lond., 25, p. 231, 1857—Santo Domingo; Selater, Cat. Coll. Amer. Bds., p. 102, 1862—part, spec. a, Santo Domingo; Cory, Bull. Nutt. Orn. Cl., 6, p. 152, 1881—Santo Domingo;



idem, Bds. Haiti & San Dom., p. 69, col. pl., 1884—Almercen and Samaná; Tristram, Ibis, 1884, p. 168—Dominican Republic; Cory, Auk, 3, p. 203, 1886—part, Haiti and Santo Domingo; Sharpe, Cat. Bds. Brit. Mus., 12, p. 82, 1888—part, spec. b, Santo Domingo; Cory, Bds. W. Ind., p. 90, 1889—part, Haiti; Christy, Ibis, 1897, p. 325—Sánchez; Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 362, 1909—Dominican Republic.

*Pyrrhulagra violacea* Cory, Cat. W. Ind. Bds., pp. 112, 148, 1892—part, Haiti and Santo Domingo; Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 15, 1896—Santo Domingo City, Catarey, and Aguacate.

*Pyrrhulagra violacea affinis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 553, 1901—Haiti (monog.); Peters, Bull. Mus. Comp. Zool., 61, p. 425, 1917—Dominican Republic (Monte Cristi, Sosúa, Arroyo Salado); Danforth, Auk, 46, p. 375, 1929—main island (of Hispaniola) and Gonave.

*Loxigilla violacea affinis* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 519, 1928—part, Haiti and Gonave; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 434, 1931—Hispaniola, including Gonave, Catalina, and Saona Islands (monog.); idem, Proc. U. S. Nat. Mus., 81, art. 2, p. 39, 1932—Gonave Island and Thomazeau, Haiti; Wetmore and Lincoln, l.c., 82, p. 66, 1933—Hispaniola.

*Range*.—Island of Haiti, including Gonave, Catalina, and Saona Islands, Greater Antilles.

105: Haiti (Le Coup, 3; Kenskoff, 1; Port de Paix, 1); Dominican Republic (Samaná, 6; Almercen, 14; Puerto Plata, 6; Catarey, 15; Aguacate, 14; Santo Domingo, 45).

### ***Loxigilla violacea maurella* Wetmore.<sup>1</sup> TORTUE BULLFINCH.**

*Loxigilla violacea maurella* Wetmore, Smiths. Misc. Coll., 81, No. 13, p. 4, May 15, 1919—Tortue Island, Haiti (type in U. S. National Museum); idem and Swales, Bull. U. S. Nat. Mus., 155, p. 437, 1931—Tortue Island (monog.).

*Loxigilla violacea affinis* (not *Pyrrhulagra affinis* Ridgway) Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 519, 1928—part, Tortue Island (nest and eggs descr.).

*Range*.—Tortue (Tortuga) Island, off the north coast of Haiti, Greater Antilles.

### ***Loxigilla violacea parishi* Wetmore.<sup>2</sup> ILE A VACHE BULLFINCH.**

*Loxigilla violacea parishi* Wetmore, Proc. Biol. Soc. Wash., 44, p. 27, Feb. 21, 1931—Ile à Vache, southwestern Haiti (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 81, art. 2, p. 40, 1932—Ile à Vache; idem

<sup>1</sup>*Loxigilla violacea maurella* Wetmore: Similar to *L. v. affinis*, but larger, with bulkier bill. Wing, 82–84, (female) 77½; tail, 70–72, (female) 66; bill, 15½–17; depth at base, 16–17.

<sup>2</sup>*Loxigilla violacea parishi* Wetmore: Similar to *L. v. affinis*, but slightly smaller, including the bill. Wing, 71–71½, (female) 67; tail, 62½, (female) 59; bill, 14½, (female) 13; depth at base, 10½–12.

and Lincoln, l.c., 82, art. 25, p. 67, 1933—Ile à Vache and Beata Island (crit.; nest and eggs).

*Range*.—Ile à Vache and Beata Island, off the southern coast of the southwestern peninsula of Haiti, Greater Antilles.

**\**Loxigilla noctis ridgwayi* (Cory). ANTIGUAN BULLFINCH.**

*Pyrrhulagra noctis ridgwayi* Cory, Cat. W. Ind. Bds., p. 150, 1892—Antigua, Lesser Antilles (type in coll. of C. B. Cory, now in Field Museum).<sup>1</sup>

*Loxigilla noctis* (not *Fringilla noctis* Linnaeus) Lawrence, Proc. U. S. Nat. Mus., 1, p. 233, 1878—Antigua; idem, l.c., 1, p. 487, 1879—part, Antigua; Cory, Auk, 8, p. 47, 1891—Antigua.

*Pyrrhulagra noctis ridgwayi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 558, 1901—Antigua (monog.); Riley, Smiths. Misc. Coll., 47, p. 291, 1904—Antigua.

*Loxigilla noctis ridgwayi* Danforth, Auk, 51, p. 364, 1934—Antigua.

*Range*.—Island of Antigua, Lesser Antilles.

9: Lesser Antilles (Antigua, 9).

***Loxigilla noctis chazaliei* Oustalet.<sup>2</sup> BARBUDAN BULLFINCH.**

*Loxigilla chazaliei* Oustalet, Bull. Soc. Zool. France, 20, p. 184, 1895—Barbuda (cotypes in coll. of R. de Dalmas, subsequently in Tring Collection, now in the American Museum of Natural History, New York, examined; cf. Hartert, Nov. Zool., 26, p. 156, 1919).

*Loxigilla noctis* (not *Fringilla noctis* Linnaeus) Lawrence, Proc. U. S. Nat. Mus., 1, p. 239, 1878—Barbuda; idem, l.c., 1, p. 487, 1879—part, Barbuda.

*Pyrrhulagra noctis ridgwayi* Cory, Cat. W. Ind. Bds., pp. 112, 150, 1892—part, Barbuda.

*Pyrrhulagra noctis coryi* (not of Ridgway, 1898) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 559, 1901—part, Barbuda; Riley, Smiths. Misc. Coll., 47, p. 291, 1904—Barbuda (crit.).

*Loxigilla noctis chazaliei* Danforth, Journ. Agric. Univ. Puerto Rico, 19, p. 482, 1935—Barbuda (crit.); idem, l.c., 21, p. 227, 1937—Barbuda (crit.).

*Range*.—Island of Barbuda, Lesser Antilles.

<sup>1</sup> The other islands listed by Cory refer to other races.

<sup>2</sup> *Loxigilla noctis chazaliei* Oustalet needs further investigation. When examining the original examples many years ago, no material from Antigua was available for comparison, but the race seemed to me distinct from *L. n. coryi*, of St. Christopher. Mr. J. T. Zimmer has supplied the following note: "Compared with our pair of *ridgwayi*, the four specimens, including the cotypes, from Barbuda in our collection seem to be slightly different. The males are rather grayer in general coloration, although one of the cotypes is less distinct than the other two males. The back and sides of the head and the breast are less sooty, and one of the specimens, not a cotype, has somewhat of an olivaceous tinge on the outer edges of the rectrices near the base, not so brownish in the other two males. The female of *chazaliei* is decidedly paler than our female of *ridgwayi*. The upper parts are lighter brown, the auricular region is more brownish (less grayish), and the under surface is very distinctly paler buff, the breast being hardly darker than the abdomen. Perhaps it may be as well to recognize this form of Oustalet, although its full range may be uncertain." Danforth likewise insists on the grayer coloration of Barbuda birds.

**\*Loxigilla noctis coryi** (Ridgway). CORY'S BULLFINCH.

*Pyrrhulagra coryi* Ridgway, Auk, 15, p. 323, Oct., 1898—St. Eustatius, Lesser Antilles (type in U. S. National Museum).

*Loxigilla noctis* (not *Fringilla noctis* Linnaeus) Cory, Auk, 8, pp. 46–48, 1891—Anguilla, St. Eustatius, and St. Christopher; Sclater, Proc. Zool. Soc. Lond., 1892, p. 499—Anguilla.

*Pyrrhulagra noctis ridgwayi* Cory, Cat. W. Ind. Bds., pp. 112, 150, 1892—part, St. Kitts, Anguilla, and St. Eustatius; Peters, Auk, 44, p. 537, 1927—Anguilla (crit.); Danforth, Auk, 47, p. 47, 1930—St. Martin.

*Pyrrhulagra noctis coryi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 559, 1901—part, Anguilla, Saba, St. Eustatius, and St. Christopher (monog.).

*Loxigilla noctis coryi* Danforth, Journ. Agric. Univ. Puerto Rico, 21, p. 226, 1937 (monog.).

*Range*.—Islands of Anguilla, St. Martin, Saba, St. Eustatius, St. Christopher (St. Kitts), and Nevis, Lesser Antilles.

36: Lesser Antilles (Anguilla, 1; St. Eustatius, 10; St. Kitts, 25).

**\*Loxigilla noctis dominicana** (Ridgway). DOMINICAN BULLFINCH.

*Pyrrhulagra dominicana* Ridgway, Auk, 15, p. 323, Oct., 1898—Dominica (type in U. S. National Museum).

*Loxigilla noctis* (not *Fringilla noctis* Linnaeus) Taylor, Ibis, 1864, p. 167—part, Dominica; Lawrence, Proc. U. S. Nat. Mus., 1, p. 57, 1878—Dominica (crit.; nest and eggs); idem, l.c., 1, pp. 457, 487, 1879—Guadeloupe and Dominica; (?) Sclater, Proc. Zool. Soc. Lond., 1879, p. 765—Montserrat; (?) Grisdale, Ibis, 1882, pp. 486, 487—Montserrat; Cory, Ibis, 1886, p. 473—Marie Galante; Sharpe, Cat. Bds. Brit. Mus., 12, p. 84, 1888—part, spec. e-g, (?)o, Guadeloupe, Dominica, and (?) Montserrat; Sclater, Proc. Zool. Soc. Lond., 1889, p. 326—Dominica; Cory, Auk, 8, p. 49, 1891—Guadeloupe; Nicoll, Ibis, 1904, p. 569—Dominica.

*Pyrrhulagra noctis ridgwayi* Cory, Cat. W. Ind. Bds., pp. 112, 150, 1892—part, (?) Montserrat, Guadeloupe, Marie Galante, and Dominica.

*Loxigilla noctis sclateri* [sic] (not *L. n. sclateri* Allen) Verrill, Trans. Conn. Acad. Sci., 8, p. 337, 1892—Dominica (crit.; nest and eggs descr.).

*Pyrrhulagra noctis dominicana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 556, 1901 (monog.); Noble, Bull. Mus. Comp. Zool., 60, p. 385, 1916—Guadeloupe (crit.).

*Loxigilla noctis dominicana* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 544, 1928—Dominica; Danforth, Journ. Agric. Univ. Puerto Rico, 21, p. 228, 1937 (monog.).

*Range*.—Islands of Dominica, Marie Galante, La Desirade, Guadeloupe, and (?) Montserrat, Lesser Antilles.<sup>1</sup>

36: Lesser Antilles (Dominica, 4; Marie Galante, 3; Guadeloupe, 25; Grande Terre, Guadeloupe Island, 4).

<sup>1</sup> No material seen from Montserrat.

**\**Loxigilla noctis desiradensis* Danforth.<sup>1</sup> DESIRADE BULLFINCH.**

*Loxigilla noctis desiradensis* Danforth, Journ. Agric. Univ. Puerto Rico, 21, p. 229, April, 1937—La Desirade (type in Field Museum).

*Loxia noctis* (not *Fringilla noctis* Linnaeus) Cory, Ibis, 1886, p. 474—La Desirade.

*Pyrhulagra noctis ridgwayi* Cory, Cat. W. Ind. Bds., pp. 112, 150, 1892—part, La Desirade.

*Range*.—Island of Desirade, near Guadeloupe, Lesser Antilles.  
5: Lesser Antilles (Desirade, 5).

**\**Loxigilla noctis noctis* (Linnaeus). MARTINIQUE BULLFINCH.**

*Fringilla noctis* Linnaeus, Syst. Nat., 12th ed., 1, p. 320, 1766—based primarily on "Le Père Noir" Brisson, Orn., 3, p. 118, pl. 7, fig. 1; Martinique (type in Réaumur Collection).<sup>2</sup>

*Fringilla rufo-barbata* Jacquin, Beitr. Gesch. Vogel, p. 11, 1784—Martinique (type not extant).

*Pyrhulagra noctis* Bonaparte, Consp. Gen. Av., 1, (2), p. 493, 1850—part, Martinique; Cory, Cat. W. Ind. Bds., pp. 112, 149, 1892—Martinique (crit.).

*Loxigilla noctis* Selater, Cat. Coll. Amer. Bds., p. 102, 1862—Martinique; Taylor, Ibis, 1864, p. 167—part, Martinique; Lawrence, Proc. U. S. Nat. Mus., 1, pp. 355, 487, 1879—Martinique; Cory, Auk, 4, p. 95, 1887—Martinique; Sharpe, Cat. Bds. Brit. Mus., 12, p. 84, 1888—part, spec. h, i, Martinique.

*Pyrhulagra noctis noctis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 554, 1901—Martinique (monog.).

*Range*.—Island of Martinique, Lesser Antilles.  
14: Lesser Antilles (Martinique, 14).

**\**Loxigilla noctis sclateri* Allen.<sup>3</sup> SANTA LUCIA BULLFINCH.**

*Loxigilla noctis sclateri* Allen, Bull. Nutt. Orn. Cl., 5, p. 166, July, 1880—Santa Lucia, Lesser Antilles (cotypes in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 370, 1930); Cory, Auk, 3, p. 204, 1886—Santa Lucia (descri.); Ridgway, Proc. U. S. Nat. Mus., 12, p. 129, 1890—Santa Lucia; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 544, 1928—Santa Lucia (nest and eggs); Danforth, Monog.

<sup>1</sup> *Loxigilla noctis desiradensis* Danforth: Similar to *L. n. dominicana* but with shorter wing and tarsus. Wing, (male) 67–69½, (female) 62–65.

<sup>2</sup> Though Linnaeus also quotes Sloane's "*Passer niger, punctis croceis notatus*" (Voy. Jamaica, 2, p. 311), and "*Yohualtototl*" of Hernandez (Hist. Nov. Hisp., p. 49), two rather indifferently described birds, his diagnosis, "*F. nigra, gula lorisque rufis, rostro nigro*," is clearly taken from Brisson, who described a specimen sent by Thibault de Chanvalon from Martinique to de Réaumur.

<sup>3</sup> *Loxigilla noctis sclateri* Allen is rather a poor form hardly deserving recognition. Eight additional specimens examined.

Univ. Puerto Rico, Ser. B, No. 3, p. 103, 1935—Santa Lucia (habits, food); idem, Journ. Agric. Univ. Puerto Rico, **21**, p. 230, 1937 (crit.).

*Loxigilla noctis* (not *Fringilla noctis* Linnaeus) Sclater, Proc. Zool. Soc. Lond., 1871, p. 270—Santa Lucia (crit.); Semper, l.c., 1872, p. 649—Santa Lucia (habits); Lawrence, Proc. U. S. Nat. Mus., **1**, p. 57 (in text), 1878—Santa Lucia (crit.); Sharpe, Cat. Bds. Brit. Mus., **12**, p. 84, 1888—part, spec. k-n, Santa Lucia; Sclater, Proc. Zool. Soc. Lond., 1889, p. 395—Santa Lucia; Nicoll, Ibis, 1904, p. 560—Santa Lucia (crit., plumages).

*Pyrhulagra noctis sclateri* Cory, Cat. W. Ind. Bds., pp. 112, 150, 1892—Santa Lucia (crit.); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 555, 1901—Santa Lucia (monog.).

*Range*.—Island of Santa Lucia, Lesser Antilles.

35: Lesser Antilles (Santa Lucia, 35).

**\**Loxigilla noctis crissalis* (Ridgway). ST. VINCENT BULLFINCH.**

*Pyrhulagra crissalis* Ridgway, Auk, **15**, p. 323, Oct., 1898—Cumberland Valley, St. Vincent (type in U. S. National Museum).

*Loxigilla noctis* (not *Fringilla noctis* Linnaeus) Lawrence, Proc. U. S. Nat. Mus., **1**, p. 191, 1878—St. Vincent (crit.); Lister, Ibis, 1880, p. 40—St. Vincent.

*Pyrhulagra noctis grenadensis* Cory, Cat. W. Ind. Bds., pp. 112, 150, 1892—part, St. Vincent.

*Pyrhulagra noctis crissalis* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 557, 1901—St. Vincent (monog.); Clark, Proc. Bost. Soc. N. H., **32**, pp. 285, 303, 1905—St. Vincent.

*Loxigilla noctis crissalis* Bond, Proc. Acad. Nat. Sci. Phila., **80**, p. 544, 1928—St. Vincent; Danforth, Journ. Agric. Univ. Puerto Rico, **21**, p. 230, 1937 (crit.).

*Range*.—Island of St. Vincent, Lesser Antilles.

20: Lesser Antilles (St. Vincent, 20).

**\**Loxigilla noctis grenadensis* (Cory). GRENADA BULLFINCH.**

*Pyrhulagra noctis grenadensis* Cory, Cat. W. Ind. Bds., p. 150, 1892—part, Grenada (type in coll. of C. B. Cory, now in Field Museum); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 560, 1901—Grenada (monog.); Clark, Proc. Bost. Soc. N. H., **32**, pp. 285, 306, 1905—Grenada.

*Loxigilla noctis* (not *Fringilla noctis* Linnaeus) Lawrence, Proc. U. S. Nat. Mus., **1**, p. 269, 1878—Grenada; idem, l.c., **1**, p. 487, 1879—part, Grenada; Wells, l.c., **9**, p. 614, 1886—Grenada (habits, nest and eggs).

*Loxigilla noctis grenadensis* Danforth, Journ. Agric. Univ. Puerto Rico, **21**, p. 231, 1937 (crit.).

*Range*.—Island of Grenada, Lesser Antilles.

7: Lesser Antilles (Grenada, 7).

**Loxigilla noctis propinqua** Lawrence.<sup>1</sup> GUIANAN BULLFINCH.

*Loxigilla noctis* var. *propinqua* Lawrence, Proc. U. S. Nat. Mus., 1, p. 58 (in text), July 31, 1878—Essequibo River, British Guiana (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York).

*Loxigilla propinqua* Sharpe, Cat. Bds. Brit. Mus., 12, p. 85, 1888 (ex Lawrence).

*Pyrrhulagra noctis propinqua* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 549, 1901—British Guiana (crit.).

*Pyrrhulagra propinqua* Chubb, Bds. Brit. Guiana, 2, p. 427, 1921—Essequibo River and Berbice (ex Lawrence).

*Range*.—British Guiana (Essequibo River and Berbice).

**\*Loxigilla noctis barbadensis** Cory.<sup>2</sup> BARBADOS BULLFINCH.

*Loxigilla barbadensis* Cory, Auk, 3, p. 382, July, 1886—Barbados, Lesser Antilles (type in coll. of C. B. Cory, now in Field Museum); idem, Bds. W. Ind., p. 290, 1889—Barbados (descr.); Feilden, Ibis, 1889, p. 483—Barbados (nest and eggs); Nicoll, Ibis, 1904, p. 558—Barbados (crit.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 543, 1928—Barbados; Danforth, Journ. Agric. Univ. Puerto Rico, 21, p. 232, 1937 (crit.).

*Loxigilla noctis* (not *Fringilla noctis* Linnaeus) Sclater, Proc. Zool. Soc. Lond., 1874, p. 175—Barbados; Sharpe, Cat. Bds. Brit. Mus., 12, p. 84, 1888—part, spec. b-d, Barbados.

*Pyrrhulagra barbadensis* Cory, Cat. W. Ind. Bds., pp. 112, 150, 1892—Barbados; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 561, 1901—Barbados (monog.); Clark, Proc. Bost. Soc. N. H., 32, pp. 285, 303, 1905—Barbados.

*Range*.—Island of Barbados, Lesser Antilles.

8: Lesser Antilles (Bathsheba, Barbados, 1; Barbados, 7).

Genus **MELOPYRRHA** Bonaparte

*Melopyrrha* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 924, Dec., 1853—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 82, 1885) *Loxia nigra* Linnaeus.

<sup>1</sup>*Loxigilla noctis propinqua* Lawrence is stated by Ridgway to resemble *L. n. grenadensis* in dimensions, but to differ by less intensely black coloration and by having the rufous gular area restricted to the upper throat. The female and immature plumages are unknown. This race rests upon three males secured by A. H. Alexander on the Essequibo River. The collector claimed having shot quite a number of specimens in that locality and having also observed it at Berbice. It is very strange that no other naturalist ever met with a representative of this otherwise purely West Indian group anywhere on the South American continent, though Bonaparte (Consp. Gen. Av., 1, p. 493, 1850) lists *Pyrrhulagra noctis* from "Surinam," which may refer to the same form. More information about this mysterious bird is highly desirable.

<sup>2</sup>*Loxigilla noctis barbadensis* Cory is the most primitive member of the group, the adult males closely resembling in coloration the female of *L. n. sclateri*. No black males have yet been collected, though Bond records having seen one during his rambles in Barbados.

**\*Melopyrrha nigra nigra** (Linnaeus). CUBAN BULLFINCH.

*Loxia nigra* Linnaeus, Syst. Nat., 10th ed., 1, p. 175, 1758—based on "The little black Bullfinch" Catesby (Nat. Hist. Carolina, 1, p. 68, pl. 68) and "The Black Bullfinch" Albin (Suppl. Nat. Hist. Bds., 3, p. 65, pl. 69).<sup>1</sup>

*Pyrrhula crenirostris* Vieillot, Hist. Nat. Ois. Chant. Zône Torr., p. 77, in or before 1807—"le Mexique" [errore] et l'île de Cuba."

*Pyrrhula nigra* Vieillot and Oudart, Gal. Ois., 1, (2), p. 65, pl. 57, circa 1822; Vigors, Zool. Journ., 3, p. 440, 1827—near Havana, Cuba; d'Orbigny, in Sagra, Hist. Ile de Cuba, Orn., p. 108, pl. 17, 1839—Cuba.

*Sporophila nigra* Bonaparte, Consp. Gen. Av., 1, (2), p. 498, 1850—"Mexico" (errore) et "Antilles" (descr.).

*Melopyrrha nigra* Gundlach and Cabanis, Journ. Orn., 4, p. 8, 1856—Cuba (nest and eggs descr.); Slater, Cat. Coll. Amer. Bds., p. 103, 1862—Cuba; Gundlach, Journ. Orn., 22, p. 125, 1874—Cuba (habits, nest, and eggs); Cory, Auk, 3, p. 206, 1886—Cuba (descr.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 141, 1888—Cuba (San Cristóbal, Tuabeque); Cory, Bds. W. Ind., p. 93, 1889—part, Cuba; idem, Cat. W. Ind. Bds., p. 112, 1892—part, Cuba; Chapman, Bull. Amer. Mus. N. H., 4, p. 309, 1892—near Trinidad, Cuba; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 562, 1901—Cuba (monog.); Bangs and Zappey, Amer. Natur., 39, p. 215, 1905—Punta al Este, Isle of Pines; Todd, Ann. Carnegie Mus., 10, p. 283, 1916—Calota Grande and Hato, Isle of Pines; Barbour, Mem. Nutt. Orn. Cl., 6, p. 129, 1923—Cuba (habits); Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 40, 1932—Puerto de Tánamo and Rio Moa, Cuba.

*Range*.—Island of Cuba, including Isle of Pines, Greater Antilles.

11: Cuba (San Diego de los Baños, 1; near Palacios, 1; Casila, Prov. Santa Clara, 4; unspecified, 5).

**\*Melopyrrha nigra taylori** Hartert.<sup>2</sup> GRAND CAYMAN BULLFINCH.

*Melopyrrha taylori* Hartert, Nov. Zool., 3, p. 257, Sept., 1896—Grand Cayman (type in Tring Collection, now in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 24, p. 154, 1919); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 563, 1901—Grand Cayman (monog.); Nicoll, Ibis, 1904, p. 582—near Newlands, Grand Cayman; Lowe, Ibis, 1909, p. 345—Grand Cayman; idem, Ibis, 1911, p. 159—Grand Cayman; English, Ibis, 1916, p. 31—Grand Cayman (food); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 23, 1931—Grand Cayman.

*Melopyrrha nigra* (not *Loxia nigra* Linnaeus) Cory, Auk, 3, p. 501, 1886—Grand Cayman; idem, Bds. W. Ind., p. 93, 1889—part, Grand Cayman; idem, Cat. W. Ind. Bds., p. 112, 1892—part, Grand Cayman.

*Range*.—Island of Grand Cayman, south of Cuba.

31: Greater Antilles (Grand Cayman, 31).

<sup>1</sup> Catesby gives "Mexico" as habitat, while Albin's description was based on a live bird of unrecorded origin. Cuba, the only island inhabited by the species, may be taken as terra typica.

<sup>2</sup> *Melopyrrha nigra taylori* Hartert, while easily distinguished by larger size and less glossy plumage, is clearly a geographical race of the Cuban Bullfinch.

Genus **PIEZORHINA** Lafresnaye

*Piezorina*<sup>1</sup> Lafresnaye, Mag. Zool., (2), 5, cl. 2, text to pl. 30, pp. 1, 2, 1843—type, by orig. desig., *Guiraca cinerea* Lafresnaye.

*Piezorhina* Bonaparte, Cons. Gen. Av., 1, (2), p. 542, 1850—emendation.

**Piezorhina cinerea** (Lafresnaye). CINEREOUS FINCH.

*Guiraca cinerea* Lafresnaye, Mag. Zool., (2), 5, cl. 2, pl. 30, 1843—"aux îles Gallapagos," errore=coast region of northwestern Peru (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 370, 1930); Prévost and Des Murs, Voy. Vénus, Zool., p. 209, 1855—"Îles Gallapagos."

*Camarhynchus cinerea*(us) Bonaparte, Cons. Gen. Av., 1, (2), p. 542, 1850 (ex Lafresnaye); Salvin, Trans. Zool. Soc. Lond., 9, p. 491, 1876—"Gallapagos" (ex Lafresnaye); Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 321—Tumbez, Peru.

*Piezorhina cinerea* Sclater and Salvin, Proc. Zool. Soc. Lond., 1878, p. 137—Sorritos [=Zorritos], Prov. Tumbez, Peru; Taczanowski, l.c., 1880, p. 199—Chepen; Salvin, l.c., 1883, p. 421—Payta, Dept. Piura, Peru; Taczanowski, Orn. Pér., 3, p. 23, 1886—northwestern Peru (Tumbez, Guadalupe, Chaman); Sharpe, Cat. Bds. Brit. Mus., 12, p. 89, 1888—Payta and Tumbez; Bangs and Noble, Auk, 35, p. 462, 1918—Sullana, Piura; Chapman, Bull. Amer. Mus. N. H., 55, p. 608, 1926—Lamor and Samate, Tumbez, Peru.

*Range.* Arid Tropical zone of northwestern Peru, from Tumbez south to Libertad (Chepen).<sup>2</sup>

Genus **NEORHYNCHUS** Sclater

*Callyrhynchus* (not *Callorynchus* Gronovius, 1763) Lesson, Rev. Zool., 5, p. 209, "July," 1842—type, by monotypy, *Callyrhynchus peruvianus* Lesson; idem, Echo du Monde Savant, 9e année, 2nd sém., No. 11, col. 253, August 11, 1842.<sup>3</sup>

*Callirhynchus* (not Agassiz, 1846) Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 822, May, 1856—emendation.

*Neorhynchus* Sclater, Proc. Zool. Soc. Lond., 1869, p. 147—new name for "*Callirhynchus*" [i.e., *Callyrhynchus*] Lesson.

**Neorhynchus peruvianus peruvianus** (Lesson). PERUVIAN NEORHYNCHUS.

*Callyrhynchus peruvianus* Lesson, Rev. Zool., 5, p. 209, "July," 1842—Callao, Peru (descr. of young; type in coll. of R. P. Lesson, now in the Academy of

<sup>1</sup> Evidently an error of transcription, since the generic name is stated to signify "bec comprimé."

<sup>2</sup> Five specimens, from Tumbez and Payta, examined.

<sup>3</sup> It is quite probable that the account in the "Echo du Monde Savant" has priority, since the July issue of the "Revue de Zoologie," containing, as it does, the minutes of the meeting of the Academy of Sciences held on July 25, must have been published considerably later than indicated by its ostensible date.



Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 61, 1899); idem, Echo du Monde Savant, 9e année, 2nd sém., No. 11, col. 253, August 11, 1842—Callao; idem, l.c., 10e année, No. 36, col. 850, May 14, 1843—Callao and Lima, Peru.

*Callirhynchus masesus* Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 822, May, 1856—no locality given (descr. of adult male; type in Paris Museum).<sup>1</sup>

*Neorhynchus nasesus* Sclater, Proc. Zool. Soc. Lond., 1869, p. 147—Lima, Peru; Taczanowski, l.c., 1874, p. 520—Lima; idem, Orn. Pér., 3, p. 9, 1886—part, Lima; Sharpe, Cat. Bds. Brit. Mus., 12, p. 88, 1888—Lima; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 376—Ica, Peru.

*Neorhynchus maseus* Sclater, Proc. Zool. Soc. Lond., 1869, pl. 12.

*Neorhynchus naseus* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 61, 1899.

*Range*.—Arid Tropical zone of western Peru, from Libertad (Trujillo) to Ica.<sup>2</sup>

### ***Neorhynchus peruvianus devronis* (Verreaux).<sup>3</sup> ECUADORIAN NEORHYNCHUS.**

*Callirhynchus devronis* Verreaux, Rev. Mag. Zool., (2), 4, p. 314, 1852—no habitat indicated (location of type not stated).

*Callirhynchus drovoni* Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 822, May, 1856 (ex Verreaux).

*Neorhynchus nasesus* (not *Callirhynchus masesus* Bonaparte) Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 320—Tumbez, Peru; Berlepsch and Taczanowski, l.c., 1883, p. 550—Guayaquil, Ecuador; Taczanowski, Orn. Pér., 3, p. 9, 1886—part, Tumbez.

*Neorhynchus devronis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 89, 1888—Guayaquil; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 23, 1899—Puntilla de Santa Elena, Ecuador.

*Neorhynchus devronis devronis* Chapman, Bull. Amer. Mus. N. H., 55, p. 607, 1926—Bahia de Caraques, Santa Elena, Puná Island, and Tembleque Island, Ecuador (crit.).

*Range*.—Arid Tropical zone of southwestern Ecuador, from Manaví (Bahia de Caraques) southwards, and extreme northwestern Peru (Tumbez).

<sup>1</sup> I have not succeeded in finding the specimen in the Paris Museum.

<sup>2</sup> *Material examined*.—Peru: Lima, 4; Ica, 3.

<sup>3</sup> *Neorhynchus peruvianus devronis* (Verreaux): Similar to *N. p. peruvianus*, but with shorter wings and tail, and decidedly smaller, less bulky bill. Wing (adult males), 56–59; tail, 40–42; bill, 14–15.

A single adult male from Tumbez, while possessed with a slightly larger bill than others from Guayaquil and Puntilla de Santa Elena, is distinctly nearer the Ecuadorian than the Peruvian form.

It is with considerable reluctance that we retain the name *devronis* for the small northern form. There is absolutely nothing in the description (which is by no means clear, no mention being made of the black color on the throat) to indicate that the type came from Ecuador rather than from Peru, though—considering the period—the latter country is much more likely to have supplied the

Genus **SPOROPHILA** Cabanis<sup>1</sup>

*Spermophila* (not of Richardson, 1825) Swainson, Zool. Journ., 3, No. 11, p. 348, 1827—type, by subs. desig. (Gray, List Gen. Bds., 2nd ed., p. 63, 1841), *Pyrrhula falcirostris* Temminck.

*Sporophila* Cabanis, Arch. Naturg., 10, (1), p. 291, 1844—new name for *Spermophila* Swainson, preoccupied.

*Gyrinorhynchus* Reichenbach, Av. Syst. Nat., pl. 79, June 1, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 82, 1855), *Loxia minula* Linnaeus.

*Drepanorhynchus* (not of Fischer and Reichenow, 1884) Dubois, Mém. Soc. Zool. France, 7, p. 400, 1894—type, by orig. desig., *Drepanorhynchus schistaceus* Dubois = *Pyrrhula falcirostris* Temminck.

*Spermophilopsis* Rothschild, Bull. Brit. Orn. Cl., 4, p. xxxvii, May 31, 1895—new name for *Drepanorhynchus* Dubois, preoccupied.

*Microphila* Chubb, Ann. Mag. Nat. Hist., (9), 7, p. 192, Feb., 1921—type, by orig. desig., *Sporophila castaneiventris* Cabanis.

**Sporophila falcirostris** (Temminck).<sup>2</sup> TEMMINCK'S SEED-EATER.

material. The type has been completely lost sight of, it being neither in the British Museum nor in the collections at Paris or Vienna. It was no doubt sold by Verreaux to one of his customers, and may yet turn up in some public or private collection.

*Material examined.*—Ecuador: Guayaquil, 3; Puntilla de Santa Elena, 2.—Peru: Tumbes, 1.

<sup>1</sup> Further subdivision of this genus seems impracticable. While I readily admit that the type species, *S. falcirostris* and, to a lesser degree, *S. schistacea* have the maxilla shallower, they are otherwise so nearly related to *S. intermedia* that generic separation would merely serve to obliterate their natural affinities. As to *Microphila*, it is hardly necessary to point out that there is absolutely no sound reason for keeping *S. castaneiventris* and allies apart.

<sup>2</sup> *Sporophila falcirostris* (Temminck), a very rare species, of which less than a dozen specimens are known, agrees in wing-formula (first primary very nearly as long as second and much longer than fifth) with *S. schistacea*, but differs by longer tail; even shallower and in the apical half more strongly curved maxilla, and much deeper mandible; larger white alar speculum; much paler, slate gray upper parts; absence of the white patch on the sides of the throat; buffy brownish flanks; buffy under tail coverts, etc. Wing, (adult male) 62, (female) 58–62; tail, 46–47, (female) 42–46; bill, 11–12.

Temminck's figure, which was evidently based on female examples, is incorrect, being much too green throughout, but shows the characteristic shape of the bill.

As we have pointed out in another connection (Verh. Zool. Bot. Ges. Wien, 54, pp. 529–531, 1904), where its plumages are described at length, *S. falcirostris* is very distinct from *S. supercilialis*, being much smaller than it and besides differing widely in coloration. Adult males are slate gray above, paler below, with the middle line of the breast white and some whitish suffusion on the throat. The inner median (and in the type of *D. schistaceus* also the inner lesser) upper wing coverts are tipped with white. Dubois's type merely differs from an adult male secured by Beske at Nova Friburgo by the presence of a small white postocular streak and of some dusky subapical spots on the chest, without any doubt individual characters. According to a manuscript note of Count Berlepsch, who has examined the specimen, which afterwards became the type of *S. sertanicola*, this is a female or a young male of the present species.

*Material examined.*—Brazil: Bahia, 3; Rio de Janeiro, 1; Nova Friburgo, Rio, 1; unspecified (type of *D. schistaceus*), 1.

- Pyrrhula falcirostris* Temminck, Nouv. Rec. Pl. Col., livr. 2, pl. 11, fig. 2 (= female), Sept., 1820—"Brésil" (descr. of female; cotypes in Leyden Museum; cf. Dubois, Mém. Soc. Zool. France, 7, p. 401, 1894).
- Fringilla falcirostris* Wied, Beitr. Naturg. Bras., 3, (1), p. 584, 1830—Bahia (descr. of female).
- "*Pyrrhula falcirostris* (*Pyrrhula virescens*, Mus. de Paris)" Lesson, Traité d'Orn., p. 451, Feb., 1831—Brazil.
- Pyrrhula virescens* Pucheran, Rev. Mag. Zool., (2), 6, p. 63, 1854—Brazil (type in Paris Museum; descr. of female).
- Sporophila falcirostris* Bonaparte, Consp. Gen. Av., 1, (2), p. 499, 1850—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 252, 1856—Bahia (descr. of immature male); Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 529, 1904—Bahia to Rio de Janeiro (crit., plumages); Ihering, Cat. Faun. Braz., 1, p. 378, 1907 (range).
- Spermophila falcirostris* Pelzeln, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio de Janeiro (descr. of adult male); Ihering, Rev. Mus. Paul., 4, p. 154, 1900—Nova Friburgo.
- Drepanorrhynchus schistaceus* Dubois, Mém. Soc. Zool. France, 7, p. 404, pl. 10, fig. 2, 1894—"Brésil" (descr. of adult male; type in Brussels Museum examined).
- Sporophila sertanicola* Lima, Rev. Mus. Paul., 12, (2), p. 105, col. pl., fig. 3, 1920—Alto da Serra do Cubatão, São Paulo (descr. of young male; type in Museu Paulista).
- Drepanorrhynchus falcirostris* (Büttikofer in) Dubois, Mém. Soc. Zool. France, 7, p. 401, 1894 (crit.).

*Range*.—Wooded region of southeastern Brazil, from Bahia to São Paulo (Alto da Serra).

### ***Sporophila frontalis* (Verreaux).<sup>1</sup> SUPERCILIATED SEED-EATER.**

<sup>1</sup> *Sporophila frontalis* (Verreaux), the largest species of the genus, is perhaps nearest to *S. falcirostris*, which it resembles in the shallow, apically abruptly curved maxilla and in wing-formula, but may be immediately recognized by much greater dimensions and the two broad, well-defined bands across the wings, pale buffy in the adult male and deep ochraceous in the female. Another peculiarity is the presence of a conspicuous superciliary stripe in the male sex, which varies, according to age, from buffy olive yellow to buffy white. The adult plumage is well figured by Dubois and by Berlepsch and Ihering. Wing, (adult male) 65–68, (female) 65–66; tail, 50–52, (female) 46–48; bill, 12–13.

In June, 1935, I carefully compared the type of *C. frontalis* with the original example of *S. superciliaris* taken for that purpose to Paris. Both are adult males in fairly good condition. Apart from the more purely whitish ground color of throat and median under parts and the more grayish (less olivaceous) brown sides—due to fading of the mounted specimen—Verreaux's type differs from the Mattodentro bird merely by brighter buffy wing-bands and by having, behind the blackish nasal plumes, a distinct white spot, which is barely suggested on the left side in Pelzeln's example. These trifling divergencies are without any question individual, as the two types otherwise agree perfectly one with another. Moreover, one of two males from Rio Grande do Sul has a number of white feathers in the middle of the crown, and the wing-bands are even brighter buff than in the Parisian specimen. The locality "Cayenne," inscribed on the label of *C. frontalis*, is most certainly erroneous. Neither Cherrie nor Klages met with the bird

*Callirhynchus frontalis* Verreaux, Nouv. Arch. Mus. Hist. Nat., 5, Bull., p. 15, pl. 1, fig. 1, 1869—"Cayenne," errore (descr. of adult male; type in Paris Museum examined).

*Spermophila superciliaris* Pelzeln, Orn. Bras., 3, pp. 223, 330, 1870—São Paulo (Mattodentro, Porto do Rio Paraná) and Nova Friburgo, Rio de Janeiro (type, from Mattodentro, in Vienna Museum examined); Sclater, Ibis, 1871, p. 22—Mattodentro (ex Pelzeln); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 122, pl. 7, 1885—Arroyo Grande, Rio Grande do Sul (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 99, 1888—São Paulo and "Pelotas," Rio Grande do Sul; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 120, 1899—Mundo Novo, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 160, 1899—São Paulo; idem, l.c., 4, p. 154, 1900—Cantagallo, Rio de Janeiro.

*Sporophila eulerei* Cabanis, Journ. Orn., 22, p. 84, 1874—Cantagallo, Rio de Janeiro (descr. of immature male; type in Berlin Museum examined).

*Sporophila superciliaris* Ihering, Cat. Faun. Braz., 1, p. 374, 1907—São Paulo and Alto da Serra, São Paulo; Bertoni, Rev. Inst. Parag., Sept., 1907, p. 3—Paraguay (crit.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 436, 1910—Alto Paraná, Paraguay; Bertoni, Faun. Parag., p. 65, 1914—Puerto Bertoni, Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 355, 1914—Alto Paraná (Misiones and Paraguay).

*Coccothraustes ambroseltianus* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 83, Jan., 1901—Alto Paraná, Paraguay (type in coll. of A. de W. Bertoni).

*Drepanorhynchus superciliaris* Dubois, Mém. Soc. Zool. France, 7, p. 401, pl. 10, fig. 3 (male), 1894 (crit.).

**Range.**—Wooded region of southeastern Brazil, in states of Rio de Janeiro (Nova Friburgo, Cantagallo), São Paulo (Mattodentro, Alto da Serra, São Paulo, Porto do Rio Paraná), and Rio Grande do Sul (Arroyo Grande), west to the confines of Paraguay and Misiones (Alto Paraná).

### ***Sporophila schistacea*<sup>1</sup> *crissalis* Carriker.<sup>2</sup> COSTA RICAN SEED-EATER.**

in French Guiana, nor is any representative of this group known to occur in the neighboring countries. The type is much more likely to have originated in the vicinity of Rio de Janeiro. The type of *S. eulerei* Cabanis is an immature male, having olive yellow superciliaries and the throat washed with yellowish. The identity of the three species being thus proved, Verreaux's term must be accepted as having priority.

**Material examined.**—Brazil: Nova Friburgo, Rio, 1; Cantagallo, Rio, 1; Rio de Janeiro, 1; Mattodentro, São Paulo, 2; Porto do Rio Paraná, 1; Arroyo Grande, Rio Grande do Sul, 2—"Cayenne," 1.

<sup>1</sup> *Sporophila schistacea*, in spite of superficial resemblance, seems to be quite distinct from *S. intermedia*, the principal characters being its shallower maxilla with less strongly convex culmen; the longer and more pointed wing, in which the first primary is very nearly as long as the second, and much longer than the fifth; the slightly shorter tarsus; and the proportionately as well as actually shorter tail. The wing measured in all the races is 60 mm. or more, while the tail never exceeds 45 mm. (only males considered). Color characters vary somewhat in the male sex, but females are always decidedly darker both above and below.

<sup>2</sup> *Sporophila schistacea crissalis* Carriker, according to notes supplied by Mr. W. E. Clyde Todd, differs from the nominate race in the male sex by being more

*Sporophila crissalis* Carriker, Ann. Carnegie Mus., 4, p. 301, April 1, 1908—Buenos Aires de Térraba, Costa Rica (type in Carnegie Museum); idem, l.c., 6, p. 889, 1910—Buenos Aires de Térraba.

*Sporophila intermedia* (not of Cabanis) Salvin, Proc. Zool. Soc. Lond., 1870, p. 189—Bugaba, Chiriquí.

*Spermophila grisea* (not *Loxia grisea* Gmelin) Sclater, Ibis, 1871, p. 18—part, Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 356, 1885—part, Bugaba; Sharpe, Cat. Bds. Brit. Mus., 12, p. 96, 1888—part, spec. r-u, Bugaba and Chiriquí.

*Sporophila grisea schistacea* (not *Spermophila schistacea* Lawrence) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 566, 1901—part, Bugaba, Chiriquí.

*Sporophila schistacea crissalis* Griscom, Bull. Mus. Comp. Zool., 78, p. 379, 1935—Chiriquí (Bugaba) and southwestern Costa Rica (Buenos Aires).

*Range.*—Tropical zone of southwestern Costa Rica (Térraba Valley) and extreme western Panama (Bugaba, Chiriquí).

***Sporophila schistacea schistacea* (Lawrence). SLATE-COLORED SEED-EATER.**

*Spermophila schistacea* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 474 (in text), 1862; idem, l.c., 8, p. 10, May, 1863—Lion Hill, Panama Railroad (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York).

*Spermophila cinerea*(?) (not *Pyrrhula cinerea* Lafresnaye and d'Orbigny) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 474, 1862—Lion Hill, Panama Railroad.

*Spermophila grisea* (not *Loxia grisea* Gmelin) Sclater, Ibis, 1871, p. 18—part, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 356, 1885—part, Lion Hill.

*Sporophila grisea schistacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 566, 1901—part, descr. and hab., Lion Hill, Panama.

*Sporophila schistacea schistacea* Penard, Proc. Biol. Soc. Wash., 36, pp. 60, 61, 1923—Las Pavas (La Cumbre, Valle), Las Ventanas (Santander), and Malagita (Chocó), Colombia (crit.); Griscom, Bull. Mus. Comp. Zool., 69, p. 183, 1929—Cana, Darien; idem, l.c., 72, p. 371, 1932—Obaldia, Panama; idem, l.c., 78, p. 379, 1935—Canal Zone, Darien, and Colombia.

brownish on the wings and under parts, while the younger individuals are darker, more olivaceous green above, and lighter, less buffy yellowish underneath. Wing (type), 61; tail, 40.

The original examples obtained by Carriker appear to be all immature, this being suggested by the brownish suffusion on back and wings. Furthermore, three adult males from Bugaba, Chiriquí, which we have seen without being able to compare them directly with typical *schistacea*, are pure slate gray above, as well as on throat and breast. One has a distinct white spot on each side of the neck, as described by Lawrence for the type of *S. schistacea*, while the others have hardly a trace of this marking. The inner smaller upper wing coverts are slightly tipped with white as in *S. falcistrostris*.

The claims of *crissalis* to recognition and the nature of its characters need corroboration by the comparison of adequate series, though Mr. Todd believes it to be valid.

*Range*.—Tropical zone of eastern Panama (west to the Canal Zone) and northern Colombia (Malagita, Chocó; Las Ventanas, Santander; Pavas, La Cumbre, Valle).<sup>1</sup>

***Sporophila schistacea incerta* Riley.<sup>2</sup> ECUADORIAN SLATE-COLORED SEED-EATER.**

*Sporophila incerta* Riley, Proc. Biol. Soc. Wash., 27, p. 213, Oct. 31, 1914—Gualea, Ecuador (type in U. S. National Museum examined).

*Sporophila schistacea incerta* Chapman, Bull. Amer. Mus. N. H., 55, p. 608, 1926—Gualea (crit.).

*Range*.—Tropical zone of western Ecuador (Gualea).

**\**Sporophila schistacea longipennis* Chubb.<sup>3</sup> LONG-WINGED SEED-EATER.**

<sup>1</sup> Three adult males from Las Ventanas (Santander) and Malagita (Chocó), Colombia, which we have examined in the Carnegie Museum, have distinct white tips to the median upper wing coverts and large, well-defined, white patches on the sides of the throat. Wing, 60–62 mm.

<sup>2</sup> *Sporophila schistacea incerta* Riley, according to Chapman, is similar to *S. s. schistacea*, but considerably larger, with a more robust bill, and the white patches of the throat seem to be barely suggested. Wing (adult male), 66; tail, 44; bill, 10<sup>1</sup>/<sub>2</sub>; its depth at base, 8.

This form is known from a single adult male in the U. S. National Museum. A cursory examination of the type, some years ago, showed it to belong to the *S. schistacea* complex, but there was no material available for comparison with other races.

<sup>3</sup> *Sporophila schistacea longipennis* Chubb: Similar to *S. s. schistacea*, but the white patches on the sides of the throat in the adult male slightly smaller or even obsolete; females darker, much more olivaceous above as well as on breast and sides, with the middle of the belly more yellowish and the under tail coverts buffy.

Not having been able to make direct comparison with the nominate race, I have taken the distinguishing characters from Penard's paper. While the material at hand is not very large, it seems difficult to correlate the differences in size with particular areas, and the segregation of two races in the Guianas (*longipennis* and *arthuri*) becomes more than problematical. Six males from Surinam, according to Penard, measure: wing, 60–62<sup>1</sup>/<sub>2</sub>; tail, 39–41; one from French Guiana (Tamanoir, Mana River): wing, 62; tail, 42; two from Roraima, British Guiana: wing, 62, 64; tail, 41, 45; one from La Unión, Caura, Venezuela: wing, 62<sup>1</sup>/<sub>2</sub>; tail, 41<sup>1</sup>/<sub>2</sub>; one from Caicara, Orinoco, Venezuela: wing, 63<sup>1</sup>/<sub>2</sub>; tail, 42<sup>1</sup>/<sub>2</sub>; one from Peixe-Boi, Pará, Brazil: wing, 64; tail, 40.

Birds from Pará (Peixe-Boi) are not distinguishable in coloration from those of the Caura Valley, which renders the existence of a distinct form in the intervening region around Roraima highly improbable. All the individuals examined have the proportions, shallow maxilla, and pointed wings of the *schistacea* group. In coloration, both sexes are much darker than *S. intermedia*. Mr. J. T. Zimmer, who on my request re-examined the Tring material, writes that, of the specimens recorded by Berlepsch and Hartert s. n. *S. grisea*, No. 11003, from Caicara, as well as nine from La Unión (Caura) belong to *S. s. arthuri*, being inseparable from four Surinam topotypes, and he also confirms the pertinence of two skins from Peixe-Boi, Pará, to the same form.

Since writing the preceding lines, I have had an opportunity of studying the material in the British Museum. An adult male from Cayenne (*arthuri*) proves to be indistinguishable from Roraima birds. The type of *S. longipennis* is somewhat aberrant, being slightly larger (wing, 64) with an unusually long tail (45 mm.),

*Sporophila longipennis* Chubb, Ann. Mag. Nat. Hist., (9), 7, p. 193, Feb., 1921—Mount Roraima, British Guiana (type in the British Museum examined); idem, Bds. Brit. Guiana, 2, p. 429, 1921—Roraima.

*Sporophila schistacea arthuri* Penard, Proc. Biol. Soc. Wash., 36, p. 60, March 28, 1923—Lelydorp, Surinam (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Spermophila plumbea* (not *Fringilla plumbea* Wied) Sclater, Cat. Coll. Amer. Bds., p. 103, 1862—Cayenne (certé) and (?) upper Amazon.

*Spermophila grisea* (not *Loxia grisea* Gmelin) Sclater, Ibis, 1871, p. 18—part, Cayenne; Salvin, Ibis, 1885, p. 215—Roraima; Sharpe, Cat. Bds. Brit. Mus., 12, p. 96, 1888—part, spec. c-e, Cayenne and Roraima; Penard, Vog. Guyana, 2, p. 394, 1910—Surinam.

*Sporophila grisea* Berlepsch and Hartert, Nov. Zool., 9, p. 25, 1902—part, Caicara (Orinoco) and La Unión (Caura), Venezuela (crit.); Berlepsch, l.c., 15, p. 120, 1908—Cayenne (ex Sclater); Snethlage, Bol. Mus. Goeldi, 8, p. 428, 1914—Peixe-Boi, Pará, Brazil (spec. examined).

**Range.** Tropical zone of southern Venezuela (La Unión, Caura; Caicara, Orinoco Valley); British, Dutch, and French Guiana; south to extreme northeastern Brazil (Peixe-Boi, Pará).<sup>1</sup>

1: Brazil (Serra da Lua, Rio Branco, 1).

**\**Sporophila intermedia* Cabanis.<sup>2</sup> GRAY SEED-EATER.**

*Sporophila intermedia* Cabanis, Mus. Hein., 1, p. 149, Oct., 1851—Venezuela (descr. of male; type in Heine Collection, now in Municipal Museum, Halberstadt); Chubb, Bds. Brit. Guiana, 2, p. 428, 1921—Takutu Mountains; Darlington, Bull. Mus. Comp. Zool., 71, p. 419, 1931—south of Rio Frio, Magdalena, Colombia; Roberts, Trop. Agric., 11, p. 99, 1934—Trinidad.

*Spermophila intermedia* Sclater, Cat. Coll. Amer. Bds., p. 103, 1862—Venezuela and "Bogotá"; Taylor, Ibis, 1864, p. 83—Trinidad.

and, in the left wing, the first primary is decidedly shorter than the second, though still markedly longer (by about 6 mm.) than the fifth. A second male from Roraima, taken on the same day, is, however, wholly typical. The three Guianan males can hardly be told from Chiriquí skins (*crissalis*) without any white on the sides of the neck. It thus appears that the last word on the number of separable races in the *schistacea* complex has not yet been said.

**Material examined.**—Venezuela: La Unión, Caura, 3; Caicara, Orinoco, 1.—French Guiana: Cayenne, 1.—British Guiana: Roraima, 2.—Brazil: Peixe-Boi, Pará, 2.

<sup>1</sup> An apparently undescribed form occurs in northern Bolivia. A single adult male from Juntas (northern base of the Cordillera of Cochabamba) differs from the one from Peixe-Boi, Pará, by still darker (more blackish slate) color of the upper parts, throat, and breast, etc. Wing, 65; tail, 45. More material should be examined before attempting any formal separation.

<sup>2</sup> *Loxia grisea* Gmelin (Syst. Nat., 1, [2], p. 857, 1789) was long used for the above species. The name rests exclusively upon "Le Gros-Bec de Virginie" Daubenton, Pl. Enl., pl. 393, fig. 1, called by Buffon "Le Grisalbin." The rather poor figure shows a blackish bill, white throat, and whitish superciliaries, and I am inclined to agree with Chubb (Bull. Brit. Orn. Cl., 41, p. 35, 1920) that the name is better dropped as undeterminable.

*Spermophila cinereola* (not *Pyrrhula cinereola* Temminck) Léotaud, Ois. Trinidad, p. 319, 1866—Trinidad.

*Spermophila grisea* (not *Loxia grisea* Linnaeus) Sclater, Ibis, 1871, p. 18—part, Venezuela, Trinidad, and "Bogotá" (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 507—Envigado and Medellín, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 356, 1885—part, Venezuela, Trinidad, and Colombia; Sharpe, Cat. Bds. Brit. Mus., 12, p. 96, 1888—part, spec. f-q, Venezuela, Trinidad, and Colombia (Santa Marta, Medellín, Envigado).

*Sporophila grisea* Chapman, Bull. Amer. Mus. N. H., 6, p. 33, 1894—Princeton, Trinidad; Phelps, Auk, 14, p. 364, 1897—Cumanacoa and San Antonio [Bermúdez], Venezuela; Allen, Bull. Amer. Mus. N. H., 13, p. 166, 1900—Cienaga, Colombia; Berlepsch and Hartert, Nov. Zool., 9, p. 25, 1902—part, Altagracia (Orinoco), Suapuré and La Prición (Caura), Venezuela; Hellmayr, l.c., 13, p. 18, 1906—Trinidad (Caparo, Chaguaramas, Pointe Gourde, Seelet, Valencia); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 360, 1908—Carenage and Pointe Gourde, Trinidad; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 208, 1913—Caño Coroza, Orinoco Delta; Todd and Carriker, Ann. Carnegie Mus., 14, p. 516, 1922—Dibulla, Tucurínca, and Fundación, Santa Marta region, Colombia; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 133, 1922—Trinidad (nest and eggs descr.).

*Sporophila grisea grisea* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 187, 1916—Orinoco region; Chapman, Bull. Amer. Mus. N. H., 36, p. 557, 1917—Colombia (Caldas, Las Lomitas, San Antonio, Cali, Miraflores, Popayán, San Agustín, below Andalucía, Chicoral, Honda, Puerto Berrio, Buena Vista, Villavicencio).

*Range*.—Tropical zone of Trinidad, northern Venezuela (south to the Orinoco Valley), Colombia (extending up into the Subtropical zone), and British Guiana (upper Takutu Mountains).<sup>1</sup>

26: Colombia (10 miles north of Cucuta, Santander del Norte, 2; Tucurínca, Magdalena, 2; Fundación, Magdalena, 1; "Bogotá," 1); Venezuela (Maracay, Aragua, 4; Encontrados, Zulia, 10; Rio Catatumbo, Zulia, 4; Rio Aurare, Zulia, 1; Colón, Tachira, 1).

### *Sporophila plumbea*<sup>2</sup> *plumbea* (Wied). PLUMBEOUS SEED-EATER.

<sup>1</sup> Birds from Trinidad, Venezuela, and "Bogotá" agree well together, the respective series of males showing the same amount of individual variation in the coloration of the throat (with or without white), extent of the white alar speculum, and tone of the upper plumage.

*Additional material examined*.—Trinidad: Aripo, 1; Icacos, 1; Caparo, 12; Carenage, 3.—British Guiana: upper Takutu Mts., 1 (male).—Venezuela: San Antonio, 5; Maturín, Monagas, 1; San Esteban, Carabobo, 2; Altagracia, Orinoco, 8; La Prición, Caura, 1.—Colombia: "Bogotá," 23; Medellín, 1; Envigado, 1; Atuncela, 2; Las Lomitas, 1.

<sup>2</sup> *Sporophila plumbea* superficially resembles *S. intermedia*, but differs by less bulky bill with shallower mandible and less convex, more distinctly ridged culmen, as well as by more pointed wings, the first (outermost) primary being but slightly shorter than the second and much longer than the fifth.



*Fringilla plumbea* Wied, Beitr. Naturg. Bras., 3, (1), p. 579, 1830—"Campo Geral of inner Brazil"—boundary of Bahia and Minas Geraes (descr. of male; type lost, cf. Allen, Bull. Amer. Mus. N. H., 2, p. 223, 1889).

*Pyrrhula cinerea* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 87, 1837—Chiquitos, Bolivia (descr. of male; type lost).

*Spermophila cinerea* Lafresnaye, Rev. Zool., 10, p. 75, 1847—Bolivia (descr.).

*Sporophila cinerea* Bonaparte, Consp. Gen. Av., 1, (2), p. 499, 1850—Bolivia.

*Sporophila plumbea* Cabanis, Mus. Hein., 1, p. 149, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 242, 1856—Congonhas, Minas Geraes; Allen, Bull. Amer. Mus. N. H., 3, p. 368, 1891—Chapada, Matto Grosso; Ihering, Cat. Faun. Braz., 1, p. 374, 1907—Batataes, São Paulo; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 383, 1910—Alto Paraná, Paraguay; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—Chapada da Varzea Grande, Apertada Hora, and Santa Philomena, Piauhy; Bertoni, Faun. Parag., p. 65, 1914—Puerto Bertoni and Iguassú, Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 355, 1914—Paraguay and Misiones.

*Spermophila plumbea* Pelzeln, Orn. Bras., 3, p. 223, 1870—part, São Paulo (Itararé, Tejuco, Irisanga), Paraná (Curytiba), and Matto Grosso (Villa Bella de Matto Grosso); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 413—Minas Geraes (Lagõa Santa) and São Paulo (Mugy das Cruzes, Franca); Sclater, Ibis, 1871, p. 18—São Paulo, Matto Grosso, and Bolivia (monog.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 605—Chiquitos (ex d'Orbigny); Forbes, Ibis, 1881, p. 336 (song); Sharpe, Cat. Bds. Brit. Mus., 12, p. 97, 1888—Brazil (Curytiba, Itararé); Pereyra, El Hornero, 5, p. 218, 1933—Zelaya, Buenos Aires (Feb.).

*Spermophila aurantirostris* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 84, Jan., 1901—Puerto Bertoni, Alto Paraná, Paraguay (type in coll. of A. de W. Bertoni).

*Sporophila plumbea plumbea* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 296, 1929—Piauhy (ex Reiser); Naumburg, Bull. Amer. Mus. N. H., 60, p. 345, 1930—Matto Grosso; Pinto, Rev. Mus. Paul., 17, (2), p. 792, 1932—Tres Lagõas, Matto Grosso.

*Range*.—Campo region of Brazil, from southern Piauhy to Paraná, west to Matto Grosso and the adjacent parts of Bolivia (Chiquitos); occasional (in migration?) in eastern Paraguay (Alto Paraná) and Argentina (one record from Zelaya, Prov. Buenos Aires).<sup>1</sup>

<sup>1</sup> According to published records, there seems to be a gap in the range of the species between Piauhy and Minas Geraes. Three adult males from the first-named state, however, do not appreciably differ from southern birds, though their bills appear to average slightly smaller. The coloration of the bill, in males of this form, varies considerably, being either bright orange or mainly dusky or blackish, often with paler brown mandible. One specimen is clearly intermediate, having the bill orange with dusky culminal streak and dusky tip to mandible. I am unable to account for this variation, which does not seem to be due to age or season, since both orange- and black-billed individuals representing adults and immature plumage are at hand from the same locality (Itararé, São Paulo). Certain specimens, irrespective of origin, have more or less white on the upper throat, and white spots on the cheeks. This is particularly observable in one from Tejuco (São Paulo)

**Sporophila plumbea whiteleyana** (Sharpe).<sup>1</sup> WHITELEY'S  
SEED-EATER.

*Spermophila plumbea* subsp.  $\alpha$  *Spermophila whiteleyana* Sharpe, Cat. Bds. Brit. Mus., 12, p. 98, 1888—Roraima, British Guiana (type in British Museum).

*Spermophila plumbea* subsp.  $\beta$  *Spermophila colombiana* Sharpe, Cat. Bds. Brit. Mus., 12, p. 99, 1888—"Bogotá," Colombia (type in British Museum examined).

*Spermophila plumbea* (not *Fringilla plumbea* Wied) Pelzeln, Orn. Bras., 3, p. 223, 1870—part, Rio Branco, Brazil; Sclater, Ibis, 1871, p. 18—part, "Bogotá" and Cayenne; Salvin, Ibis, 1885, p. 215—Roraima; Penard, Vog. Guyana, 2, p. 394, 1910—Surinam.

*Sporophila plumbea whiteleyana* Berlepsch and Hartert, Nov. Zool., 9, p. 26, 1902—Altagracia, Rio Orinoco, Venezuela; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 119, 1912—Mexiana and Marajó; Snethlage, Bol. Mus. Goeldi, 8, p. 428, 1914—Mexiana; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 189, 1916—Altagracia, Orinoco.

*Spermophila whiteleyana* Hagmann, Zool. Jahrb. (Syst.), 26, p. 29, 1907—Mexiana.

*Spermophila plumbea whiteleyana* Snethlage, Journ. Orn., 55, p. 296, 1907—Mexiana.

*Sporophila whiteleyana* Chubb, Bds. Brit. Guiana, 2, p. 430, 1921—upper Takutu Mountains, Abary River, and Roraima.

and two from Piauihy, these birds being hardly distinguishable from the general "run" of *whiteleyana*. While we have not seen any Bolivian material, we do not doubt that *P. cinerea* Lafr. and d'Orb. really belongs to the present form, since an adult male from Villa Bella de Matto Grosso, close to the Chiquitos frontier, is in every way similar to others from São Paulo.

*Material examined*.—Brazil: Santa Philomena, Piauihy, 1; Chapada da Varzea, Piauihy, 1; Apertada Hora, Rio Parnahyba, Piauihy, 1; Tejuco, São Paulo, 2; Itararé, São Paulo, 11; Irisanga, São Paulo, 2; Curytiba, Paraná, 2; Villa Bella de Matto Grosso, Matto Grosso, 1; unspecified, 3.

<sup>1</sup> *Sporophila plumbea whiteleyana* (Sharpe): Very similar to the nominate race, but distinguishable by the adult males having more white on the upper throat and a distinct white spot below the eye.

Birds from the Orinoco Valley agree perfectly with a Guianan series, and two worn examples from Espirito Santo, Marajó, appear to be likewise inseparable from others in corresponding condition from Roraima. I am quite unable to maintain *colombiana* as distinct. The type, it is true, has an unusual amount of white on the throat, but other Bogotá skins can be matched by numerous specimens from Guiana and Venezuela. These "Bogotá" skins presumably came from the eastern base of the east Colombian Andes. There is no other published record for the occurrence of this form in Colombia. *S. p. whiteleyana*, while generally recognizable by the characters given above, is closely approached by occasional individuals of the nominate race. The females are absolutely indistinguishable. Contrary to what obtains in the typical form, all the males examined have the bill black or dark brown, the lower edge of the mandible inclining sometimes to pale brown.

*Material examined*.—British Guiana: Roraima, 10; Annai, 1.—Venezuela: Altagracia, Rio Orinoco, 10; Quiribana de Caicara, Rio Orinoco, 1.—Colombia: "Bogotá," 4.—Brazil: Espirito Santo, Marajó Island, 2.

*Range*.—Extreme northeastern Brazil, from the Rio Branco to the estuary of the Amazon (islands of Mexiana and Marajó); French, Dutch, and British Guiana; southern Venezuela, in the valley of the Orinoco, west apparently to the eastern foot of the east Colombian Andes.

**\**Sporophila albogularis* (Spix). WHITE-THROATED SEED-EATER.**

*Loxia albogularis* Spix, Av. Spec. Nov. Bras., 2, p. 46, pl. 60, figs. 1, 2 (male, female), 1825—Brazil=Bahia, as suggested by Hellmayr, 1906 (cotypes, males, in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 679, 1906).

*Spermophila albigularis* Bonaparte, Consp. Gen. Av., 1, (2), p. 497, 1850—Brazil; Selater, Ibis, 1871, p. 8—Bahia (monog.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 93, 1888—Bahia.

*Sporophila albogularis* Cabanis, Mus. Hein., 1, p. 149, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 243, 1856—Brazil, "on the Amazon River" (errore); Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 679, 1906—Bahia (descr. of female; note on types); Ihering, Cat. Faun. Braz., 1, p. 373, 1907—Bahia and "Paraguay" (errore); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 294, 1929—Piauhy (Ibiapaba, Arára) and Ceará (Varzea Formosa, Quixada).

*Sporophila albigularis* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—Pernambuco (Pão d'Alho, near Recife) and Bahia (above Joazeiro and Barra do Rio Grande); idem, l.c., p. 179, 1925—same localities.

*Sporophylla albigularis* Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará.

*Range*.—Northeastern Brazil, from Bahia north to Pernambuco, Ceará, and Piauhy.<sup>1</sup>

11: Brazil (Santo Amaro, Bahia, 1; Quixada, Ceará, 3; Varzea Formosa, Ceará, 1; Ibiapaba, Piauhy, 4; Arára, Piauhy, 2).

***Sporophila leucoptera mexianae* Hellmayr.<sup>2</sup> MEXIANA SEED-EATER.**

<sup>1</sup>The record of *S. albogularis* from Sapucay, Paraguay, by Oberholser (Proc. U. S. Nat. Mus., 25, p. 146, 1902) based on a single female, probably refers to *S. caerulescens*, but in no case to the present species. Bertoni (Faun. Parag., p. 64, 1904) did not meet with it in Paraguay, and included it only on Oberholser's authority.

*Additional material examined*.—Pernambuco: Pão d'Alho, near Recife, 1.—Bahia: Barra, 1; above Joazeiro, 1; unspecified, 11.—"Brazil," 2.

<sup>2</sup>*Sporophila leucoptera mexianae* Hellmayr: Similar in the male sex to *S. l. cinereola*, but gray of upper parts lighter, and under surface pure white without any gray suffusion across chest and along flanks. Wing (type), 62½; tail, 54; bill, 11.

In the whiteness of the under parts this form resembles *S. l. leucoptera*, but is much paler gray above and lacks the narrow white uropygial band. So far it is known only from the Island of Mexiana, in the estuary of the Amazon.

*Sporophila leucoptera aequatorialis* (not *Spermophila aequatorialis* Salvadori and Festa, 1899) Snethlage, Orn. Monatsber., 15, p. 193, Dec., 1907—Santa Maria, Island of Mexiana, Brazil (type in Museu Goeldi, Pará, examined); idem, Journ. Orn., 61, p. 520, 1913—Mexiana; idem, Bol. Mus. Goeldi, 8, p. 428, 1914—Mexiana.

*Sporophila leucoptera mexianae* Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 119, 1912—new name for *Sporophila leucoptera aequatorialis* Snethlage, preoccupied.

*Spermophila hypoleuca* (not *Fringilla hypoleuca* Lichtenstein) Hagmann, Zool. Jahrb. (Syst.), 26, p. 29, 1907—Mexiana.

*Spermophila leucoptera* (not *Coccothraustes leucoptera* Vieillot) Snethlage, Journ. Orn., 55, p. 296, 1907—Mexiana.

*Range*.—Island of Mexiana, in the estuary of the Amazon, northern Brazil.

**\**Sporophila leucoptera cinereola* (Temminck).<sup>1</sup> WHITE-BELLIED SEED-EATER.**

*Pyrrhula cinereola* Temminck, Nouv. Rec. Pl. Col., livr. 2, pl. 11, fig. 1 (=male), Sept., 1820—Brazil, we suggest Bahia (type in Leyden Museum); Chubb, Bull. Brit. Orn. Cl., 41, p. 35, 1920 (crit.).

*Fringilla hypoleuca* Lichtenstein, Verz. Doubl. Berliner Mus., p. 26, after Sept., 1823—Brazil (type in Berlin Museum).

*Pyrrhula rubrirostris* Vieillot, Tabl. Enc. Méth., Orn., 3, livr. 93, p. 1027, 1823—supposed to be from "New Holland," errore (descr. of male; type in Paris Museum).

*Fringilla rufirostris* Wied, Beitr. Naturg. Bras., 3, (1), p. 581, 1830—Rio de Janeiro (Rio Paraíba [=Parahyba] and near Villa de São Salvador) and Bahia (Camamú) (descr. of male and female; types lost, formerly in Wied Collection; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 223, 1889).

*Sporophila hypoleuca* Bonaparte, Consp. Gen. Av., 1, (2), p. 497, 1850—part, Brazil; Cabanis, Mus. Hein., 1, p. 148, 1851—Brazil; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—Pernambuco (Beberibé, Pão d'Alho) and Piauhý (Santa Philomena).

*Spermophila hypoleuca* Pelzeln, Orn. Bras., 3, p. 223, 1870—part, Sapitiba, Rio de Janeiro (spec. examined); Sclater, Ibis, 1871, p. 17—part, Bahia; Forbes, Ibis, 1881, p. 336—Pernambuco; Sharpe, Cat. Bds. Brit. Mus., 12, p. 94, 1888—Brazil (Rio, Bahia, Pernambuco, "Pará").

*Sporophila leucoptera hypoleuca* Hellmayr, Verh. Zool. Bot. Ges., 54, p. 537, 1904—part, eastern Brazil; Ihering, Cat. Faun. Braz., 1, p. 373, 1907—part, Rio de Janeiro, Bahia, and "Pará."

<sup>1</sup> *Sporophila leucoptera cinereola* (Temminck): Differs from *S. l. leucoptera* by slightly smaller size, paler gray dorsal surface without white uropygial band, and by the strong gray suffusion on the sides of the body, this color often forming a pectoral crescent on the chest. Females are merely distinguishable by their inferior dimensions. Wing (males), 56–60; tail, 51–56.

*Additional material examined*.—Piauhý: Santa Philomena, 1.—Pernambuco: Beberibé, 1; Pão d'Alho, 1.—Bahia: Bahia, 20.—Rio de Janeiro: Sapitiba, 1; Rio de Janeiro, 1.

*Sporophila leucoptera cinereola* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 294, 1929—Maranhão (Grajahú) and Piauí (Santa Philomena); Pinto, Rev. Mus. Paul., 19, p. 280, 1935—Corupéba, Bahia.

*Range*.—Eastern Brazil, from southern Maranhão<sup>1</sup> (Grajahú) and Piauí (Santa Philomena) through Pernambuco and Bahia to Rio de Janeiro (Sapitiba and Rio Parahyba).

3: Brazil (Santo Amaro, Bahia, 2; Grajahú, Maranhão, 1).

**\**Sporophila leucoptera leucoptera* (Vieillot).<sup>2</sup> WHITE-WINGED SEED-EATER.**

*Coccothraustes leucoptera* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 13, p. 521, 1817—based on "Pico triqueño" Azara, No. 123; Paraguay.

*Sporophila hypoleuca clara* Cherrie, Bull. Amer. Mus. N. H., 35, p. 188, 1916—São Lourenço River, below the mouth of the Rio Cuyabá, Matto Grosso (type in the American Museum of Natural History, New York, examined).

*Spermophila hypoleuca* (not *Fringilla hypoleuca* Lichtenstein) Hartlaub, Syst. Ind. Azara, p. 8, 1847—Paraguay (ex Azara, No. 123); Pelzeln, Orn. Bras., 3, p. 223, 1870—part, Goyás (Goyás City, Rio dos Piloens, Rio Araguaya) and Matto Grosso (Cuyabá) (spec. examined); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 413—Lagõa Santa, Minas Geraes; Sclater, Ibis, 1871, p. 17—part, Goyás and Cuyabá.

*Sporophila hypoleuca* Bonaparte, Cons. Gen. Av., 1, (2), p. 497, 1850—part, Paraguay; Burmeister, Syst. Uebers. Th. Bras., 3, p. 241, 1856—Minas Geraes; Berlepsch, Journ. Orn., 35, p. 8, 1887—Lambaré, Paraguay (crit.); Allen, Bull. Amer. Mus. N. H., 3, p. 368, 1891—Cachoeira and Corumbá, Matto Grosso (spec. examined).

*Spermophila* sp. Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 5, 1900—Urucúm, Matto Grosso (spec. examined).

*Sporophila leucoptera leucoptera* Hellmayr, Verh. Zool. Bot. Ges., 54, p. 537, 1904—Paraguay (crit.); Hartert and Venturi, Nov. Zool., 15, p. 175, 1909—Ocampo, Santa Fé, Argentina; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 382, 1910—Paraguay and Santa Fé (Ocampo); Naumburg,

<sup>1</sup> The locality "Pará" attached to a specimen in the British Museum is probably erroneous. There is no authentic record for any form of this group in the Pará region proper.

<sup>2</sup> *Sporophila leucoptera leucoptera* (Vieillot) differs from the eastern race (*cinereola*) by slightly larger size, and in the male sex by darker (almost slaty) gray tone of the upper parts, relieved by a more or less distinct, though narrow, white uropygial band, and nearly pure white ventral surface, with just a faint grayish shade along the inner sides of the chest. Wing (males), 60–65½; tail, 54–59.

Birds from Matto Grosso (*clara*), while perhaps not quite so dark, are not separable from typical Paraguayan specimens, whereas the inhabitants of Goyás and Minas Geraes slightly verge in the direction of *S. l. cinereola*.

*Additional material examined*.—Paraguay: Lambaré, 2; five leagues north of Villa Concepción, 1; unspecified, 1.—Brazil: São Lourenço River, 1; Agua Blanca de Corumbá, 1; Urucúm, 2; Cachoeira, near Cuyabá, Matto Grosso, 1; Cuyabá, 2; Goyás, 1; Rio Araguaya, Goyás, 1; Rio dos Piloens, Goyás, 1.—Argentina: Ocampo, Santa Fé, 1.

Bull. Amer. Mus. N. H., 60, p. 344, 1930—Matto Grosso (Agua Blanca de Corumbá and Rio São Lourenço); Pinto, Rev. Mus. Paul., 17, (2), p. 792, 1932—Aquidauana, Matto Grosso (crit.); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 395, 1934—Descalvados, Matto Grosso.

*Sporophila leucoptera* Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 536, 1904 (crit., nomencl.); Grant, Ibis, 1911, p. 95—Boca de Homiguera (Alto Paraguay), Matto Grosso, and Colonia Mihanovitch, Formosa, Argentina; Bertoni, Faun. Parag., p. 65, 1914—Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 355, 1914—Chaco Argentino; Ménégau, Rev. Franç. d'Orn., 5, p. 85, 1917—Caceres, Matto Grosso.

*Sporophila leucoptera hypoleuca* Hellmayr, Verh. Zool. Bot. Ges., 54, p. 537, 1904—part, central Brazil; Ihering, Cat. Faun. Braz., 1, p. 373, 1907—part, Goyáz, Matto Grosso, and Minas Geraes.

*Range*.—Interior of Brazil, in states of Minas Geraes (Lagõa Santa, Rio das Velhas), Goyáz (Goyáz, Rio Araguaia, Rio dos Piloens), and Matto Grosso; Paraguay, and the adjacent parts of Argentina (Colonia Mihanovitch, Formosa; Ocampo, Santa Fé).

1: Brazil (Rio das Velhas, near Lagõa Santa, Minas Geraes, 1).

### ***Sporophila leucoptera bicolor* (Lafresnaye and d'Orbigny).<sup>1</sup>**

BLACK-AND-WHITE SEED-EATER.

*Pyrrhula bicolor* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 86, 1837—Mojos, Bolivia (descr. of male and female; cotypes in Paris Museum); d'Orbigny, Voy. Amér. Mérid., Ois., pl. 50, fig. 1 (= male), 1844.

*Sporophila bicolor* Bonaparte, Cons. Gen. Av., 1, p. 499, 1850—Bolivia; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 242, 1930—Buena Vista, Santa Cruz, Bolivia.

*Spermophila bicolor* Selater, Cat. Coll. Amer. Bds., p. 103, 1862—Bolivia; idem, Ibis, 1871, p. 17—Mojos, Bolivia (monog.); Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 605—Mojos; Sharpe, Cat. Bds. Brit. Mus., 12, p. 138, 1888—Bolivia.

*Range*.—Tropical zone of eastern Bolivia, in depts. of El Beni (Mojos) and Santa Cruz (Buena Vista).

### **\**Sporophila obscura*<sup>2</sup> *obscura* (Lafresnaye and d'Orbigny).**

DULL-COLORED SEED-EATER.

<sup>1</sup> *Sporophila leucoptera bicolor* (Lafresnaye and d'Orbigny): Male similar to *S. l. leucoptera* in having a conspicuous white uropygial band, but upper parts, including wings and tail, glossy black instead of slate gray, and sides of neck with the suggestion of a black patch; female hardly separable by slightly paler under, and more brownish upper parts. Wing, 60–65, (female) 58; tail, 54–58, (female) 52; bill, 11–12.

*Material examined*.—Bolivia: Mojos, 5; Buena Vista, 2; unspecified, 4.

<sup>2</sup> *Sporophila obscura* differs somewhat in shape of bill from the other members of the genus, but I now agree with Todd and others that its separation is hardly warranted, though at one time I had referred it to *Catamenia*.

*Emberiza obscura* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 81, 1837—Chiquitos, Bolivia (descr. of young; type in Paris Museum; cf. Hellmayr, Nov. Zool., 20, p. 237, 1913).

*Spermophila obscura* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 519—Paltaypampa, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 169, 1927); idem, l.c., 1880, p. 199—Callacate, Peru; Berlepsch and Taczanowski, l.c., 1883, p. 550—Chimbo, Ecuador; Taczanowski, Orn. Pér., 3, p. 17, 1886—Paltaypampa; Sharpe, Cat. Bds. Brit. Mus., 12, p. 101, 1888—Callacate, Peru, and Salta, Argentina; Salvin, Nov. Zool., 2, p. 6, 1895—Viña (Huamachuco), Peru; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 177, 1902—Rio Salí, Tucumán; idem, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—Rio Salí.

*Spermophila ornata* (not *Fringilla ornata* Lichtenstein) Salvin, Ibis, 1880, p. 353—Salta (spec. in British Museum examined).

*Spermophila pauper* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 293—Cayandeled, western Ecuador (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 169, 1927); Taczanowski, Orn. Pér., 3, p. 18, 1886—Callacate, Peru; Sharpe, Cat. Bds. Brit. Mus., 12, p. 102, 1888—Chimbo, Ecuador.

*Sporophila pauper* Berlepsch, Journ. Orn., 37, p. 298, 1889—Tarapoto, Peru (crit.).

*Spermophila obscura pauper* Hartert, Nov. Zool., 5, p. 485, 1898—Chimbo, Ecuador.

*Sporophila obscura* Berlepsch and Stolzmann, Ornith., 13, p. 84, 1906—Santa Ana, Urubamba, Peru; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 383, 1910—Salta and Tucumán; Chapman, Bull. U. S. Nat. Mus., 117, p. 109, 1921—Rio Cosireni, Santa Ana, Idma, Chauillay, and San Miguel Bridge, Urubamba, Peru.

*Catamenia obscura* Hellmayr, Nov. Zool., 20, p. 237, 1913—Chiquitos, Bolivia (note on type, crit., range).

*Sporophila obscura obscura* Chapman, Bull. Amer. Mus. N. H., 55, p. 612, 1926—Bucay, Naránjo, Pallatanga, Zaruma, Porto Velo, Las Piñas, and Cebollal, Ecuador (crit.).

*Spermophila obscura obscura* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 459, 1930—Huachipa and Vista Alegre, Huánuco, Peru (crit.).

*Range.*—Tropical (and locally Subtropical) zone of northwestern Argentina (Salta and Tucumán), Bolivia, Peru, and western Ecuador.<sup>1</sup>

<sup>1</sup> In another connection I have already expressed my inability to distinguish between birds from Bolivia and Peru (*obscura*) and others from Ecuador (*pauper*), and additional material since examined serves to strengthen this conclusion. There is much individual variation, particularly with respect to the amount of white in the middle of the belly, and general coloration, besides, is subject to much seasonal change. Birds from western Ecuador and northwestern Peru average very slightly smaller, but the divergency is quite insignificant. The largest speci-

8: Bolivia (Buena Vista, Santa Cruz, 1); Peru (Hacienda Limón, 10 miles west of Balsas, 3; Huachipa, 1; Vista Alegre, 3).

***Sporophila obscura haplochroma* Todd.<sup>1</sup> SANTA MARTA  
SEED-EATER.**

*Sporophila haplochroma* Todd, Ann. Carnegie Mus., 8, p. 200, May, 1912—Cincinnati, Santa Marta district, Colombia (type in Carnegie Museum); Todd and Carriker, l.c., 14, p. 517, 1922—Cincinnati, Minca, and Pueblo Viejo, Colombia (crit.).

*Phonipara bicolor* (not *Fringilla bicolor* Linnaeus) Allen, Bull. Amer. Mus. N. H., 13, p. 165, 1900—Minca (crit.).

*Range*.—Tropical zone of Colombia and the adjacent parts of Venezuela.

**\**Sporophila simplex* (Taczanowski).<sup>2</sup> TACZANOWSKI'S SEED-EATER.**

*Spermophila simplex* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 132—Lima, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 168, 1927); Nation, l.c., 1874, p. 329—Lima (habits and nesting); Taczanowski, l.c., 1874, p. 519—Lima; idem, l.c., 1880, p. 199—Callacate, Peru; idem, Orn. Pér., 3, p. 16, 1886—Peru (Lima, Paucal, Callacate); Sharpe, Cat. Bds. Brit. Mus., 12, p. 100, 1888—Lima and Callacate, Peru; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 457, 1930—Chosica, Lima, and Macate, Ancachs.

*Sporophila simplex* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 376—Lima; Bangs and Noble, Auk, 35, p. 462, 1918—Bellavista, Peru.

*Range*.—Pacific slope of Peru, from Libertad south to Lima, east to the upper Marañón Valley (Callacate, Bellavista).

4: Peru (Macate, Ancachs, 1; Chosica, Lima, 3).

men (an adult male), with a wing of 59 mm., is from Bolivia (Buena Vista), though others from the same country hardly exceed northern birds in size.

*Spermophila obscura* Holland (Ibis, 1892, p. 196), from Estancia Espartillar, Buenos Aires, proves on examination to be a young male of *S. caeruleascens*.

*Additional material examined*.—Ecuador: Paramba, Prov. Imbabura, 1; Cayandeled, 1; Bucay, 4; Chimbo, 4.—Peru: Callacate, 2; Viña, Huamachuco, 4; Tarapoto, 2; Santa Ana, 2.—Bolivia: Omeja, Yungas, 1; Santa Cruz, 1; Buena Vista, 1; Chiquitos, 1.—Argentina: Salta, 1.

<sup>1</sup> *Sporophila obscura haplochroma* Todd: Very similar to *S. o. obscura*, but with larger, darker bill, and upper parts decidedly deeper brown. In worn plumage, this form scarcely differs in coloration from the nominate race. Wing, 54–57, (female) 51–54; tail, 42–45, (female) 38–42; bill, 10–11.

*Material examined*.—Colombia: "Bogotá," 2; Minca, 2; Cincinnati, 2; Palomina, 1; San Francisco, 1.

<sup>2</sup> *Sporophila simplex* (Taczanowski) is rather an isolated species of plain coloration with two well-marked whitish wing-bands. Birds from Callacate seem to be identical with a series from Lima.

*Additional material examined*.—Peru: Callacate, 4; Lima, 5.



**\**Sporophila torqueola torqueola* (Bonaparte). CINNAMON-RUMPED SEED-EATER.**

*Spermophila torqueola* Bonaparte, Consp. Gen. Av., 1, (2), p. 495, end of 1850—Mexico (descr. of male; cotypes, from City of Mexico, in Berlin Museum, examined; cf. van Rossem, Bull. Mus. Comp. Zool., 77, p. 421, 1934); Sclater, Proc. Zool. Soc. Lond., 26, p. 303, 1858—Capulalpam, Oaxaca; idem, Cat. Coll. Amer. Bds., p. 105, 1862—Mexico; Dugès, La Natureza, 1, p. 139, 1868—Guanajuato; Sclater, Ibis, 1871, p. 6—Oaxaca, Mazatlan, and Tepic, Mexico (monog.); Lawrence (and Grayson), Mem. Bost. Soc. N. H., 2, p. 276, 1874—Mazatlan, plains of Colima, and Tepic (habits, nest, and eggs); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 351, 1885—Mazatlan, Tepic, plains of Colima, Guanajuato, Cuernavaca, Capulalpam (Oaxaca), and Tehuantepec; Sharpe, Cat. Bds. Brit. Mus., 12, p. 119, 1888—Silao, Mazatlan, and Presidio.

*Sporophila ochropyga* (Lichtenstein MS.) Cabanis, Journ. Orn., 9, p. 5, 1861—City of Mexico (descr. of male; cotypes in Berlin Museum examined).

*Spermophila atriceps* (Baird MS.) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 479, May, 1867—Mazatlan, Sinaloa (type in U. S. National Museum).

*Sporophila torqueola* Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 142, 1886—Huehuetlan, Puebla; Jouy, l.c., 16, p. 779, 1893—Hacienda El Molina, Jalisco; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 577, 1901—western Mexico, from Sinaloa to Puebla (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 363, 1905—Escuinapa, Sinaloa; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 45, 1927—San Blas, Nayarit.

*Spermophila albitorques* Sharpe, Cat. Bds. Brit. Mus., 12, p. 120, 1888—Mexico (descr. of male; type in British Museum examined); van Rossem, Bull. Mus. Comp. Zool., 77, p. 422, 1934 (crit.).<sup>1</sup>

*Sporophila albitorques* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 578, 1901 (ex Sharpe).

*Sporophila torqueola torqueola* Griscom, Bull. Mus. Comp. Zool., 75, p. 412, 1934—Coyucá and Chilpancingo, Guerrero.

**Range.**—Southwestern Mexico, from southern Sinaloa (Mazatlan, Presidio, Rosario) south through Nayarit, Jalisco, Colima, and Guanajuato to Mexico, Morelos, Puebla, Guerrero, and Oaxaca.  
4: Mexico (Tuxpan, Jalisco, 3; unspecified, 1).

**\**Sporophila torqueola morelleti* (Bonaparte). MORELLET'S SEED-EATER.**

*Spermophila morelleti* (Pucheran MS.) Bonaparte, Consp. Gen. Av., 1, (2), p. 497, end of 1850—"Guatimala" (type, from Petén, Guatemala, in Paris Museum; cf. Salvin and Godman, Biol. Centr.-Amer., Aves, 1,

<sup>1</sup> Specimens from Presidio (near Mazatlan, Sinaloa) differ from the cotypes of *S. torqueola* (which are at the same time those of *S. ochropyga*) only in being darker on the under parts, but they are not comparable as to season. Like van Rossem, I cannot see in the type of *S. albitorques* anything but an individual variant of *torqueola*.

Thirteen specimens examined.

p. 353, 1885, and van Rossem, Bull. Mus. Comp. Zool., 77, p. 421, 1934); Sclater, Proc. Zool. Soc. Lond., 24, p. 302, 1856—Orizaba, Vera Cruz; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 102, 1868—San José and Grécia, Costa Rica.

*Sporophila moreletii* Cabanis, Mus. Hein., 1, p. 150, 1851—Mexico; idem, Journ. Orn., 9, p. 4, 1861—Costa Rica (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 212—Orizaba, Vera Cruz; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 575, 1901—part, from Vera Cruz, Mexico, to Costa Rica; Bangs, Bull. Mus. Comp. Zool., 39, p. 156, 1903—Ceiba, Honduras; idem, Auk, 24, p. 311, 1907—El Pózo de Térraba, Costa Rica; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 118, 1907—Guatemala (Los Amates, Mazatenango, Patulúl, Lake Atitlan); Ferry, l.c., p. 281, 1910—Costa Rica (Turrialba Station, Guayábo, Coliblanco); Carriker, Ann. Carnegie Mus., 6, p. 887, 1910—Costa Rica (many localities; habits, nest, and eggs); Peters, Auk, 30, p. 380, 1913—Camp Mengel and Xcopen, Quintana Roo; Rendahl, Ark. Zool., 12, No. 8, p. 31, 1919—Talamanca, Sipurio, Costa Rica; Griscom, Amer. Mus. Novit., 235, p. 16, 1926—eastern Yucatan.

*Spermophila moreleti* Sclater, Proc. Zool. Soc. Lond., 27, pp. 365, 378, 1859—Jalapa, Vera Cruz, and Playa Vicente, Oaxaca; Sclater and Salvin, Ibis, 1859, p. 17—near Lake of Petén, Dueñas, and Belize, British Honduras; Salvin, Ibis, 1859, p. 468—near Dueñas, Guatemala (nest descr.); Sclater, Cat. Coll. Amer. Bds., p. 105, 1862—Orizaba, Guatemala, and Honduras; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—San Pedro and Medina, Honduras; Sclater, Ibis, 1871, p. 10—part, southern Mexico, Guatemala, and Honduras (monog.); Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 44, 1878—Guatemala; idem, Proc. Zool. Soc. Lond., 1878, p. 58—San José, Costa Rica; idem, l.c., 1883, p. 444—Mérida, Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 352, 1885—part, Vera Cruz to Costa Rica; Salvin, Ibis, 1888, p. 261—Meco and Mujeres Islands, off Yucatan; Sharpe, Cat. Bds. Brit. Mus., 12, p. 123, 1888—Yucatan (Mérida, Mujeres, Meco), British Honduras (Corozal, Belize), Guatemala, Honduras (Medina, San Pedro), and Costa Rica (San José, Grécia, Turrialba, Irazú); Cherrie, Anal. Inst. Fis.-Geogr. y Mus. Nac. Costa Rica, 4, p. 139, 1893—Lagarto, Costa Rica.

*Spermophila moreletii* Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—State of Vera Cruz.

*Sporophila moreletii* Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Alajuéla, Cartago, and San José, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 10, p. 580, 1887—Trujillo, Honduras; Cherrie, Auk, 9, p. 27, 1892—San José to the Pacific coast, Costa Rica.

*Sporophila moreletii moreletii* Allen, Auk, 24, p. 28, 1907 (char., range); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 485, 1927—Presidio and Motzorongo, Vera Cruz; Peters, l.c., 69, p. 466, 1929—Lancetilla and Tela, Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 350, 1932—Guatemala (Chipoc, La Primavera, Sepacuite, Chamá, Barrillos, Panajachel, Antigua, San Antonio, La Perla, Puebla, San Lucas); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 340, 1932—Lancetilla, Honduras; van Tyne, Univ. Mich. Mus. Zool., Misc. Publ., 27, p. 39, 1935—Guate-

mala, Petén (Chuntuquí, Pacomón, Flores, Ixtinta, Macanché, Remate, La Libertad); Carriker and de Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 447, 1935—Quirigua and Izabal, Guatemala.

*Sporophila moreleti mutanda* Griscom, Amer. Mus. Novit., 438, p. 7, Dec. 15, 1930—Hacienda California, near Ocos, Pacific slope, western Guatemala (type in Dwight Collection, in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 64, p. 351, 1932—Hacienda California, Ocos, Carolina, and Finca El Cipres, Guatemala.

*Sporophila mutanda* Carriker and de Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 447, 1935—Quirigua, Moca (Guatemala City), and above Amatitlan, Guatemala (crit.).

*Spermophila aurita* (not of Bonaparte) Sharpe, Cat. Bds. Brit. Mus., 12, p. 133, 1888—part, spec. r-u, Guatemala (Dueñas, Retalhuleu, Totonicapam).

*Sporophila morelleti sharpei* (not of Lawrence) Chapman, Bull. Amer. Mus. N. H., 10, p. 29, 1898—Jalapa, Vera Cruz.

*Range*.—Tropical zone of southeastern Mexico, from Vera Cruz to Chiapas, Tabasco, and Yucatan, and southwards through British Honduras, Guatemala, Honduras, and Nicaragua to Costa Rica (nearly all over the country).<sup>1</sup>

50: Mexico (Teapa, Tabasco, 2); Guatemala (San José, 2; Mazatenango, 4; Patulúl, Sololá, 3; Lake Atitlan, 1; Los Amates, Izabal, 6; Bobos, Izabal, 3; Samac, Alta Vera Paz, 2); Nicaragua (San Emilio, Lake Nicaragua, 1; San Gerónimo, Chinandega, 7); Costa Rica (San José, 1; Peralta, 1; Turrialba Station, 2; Coliblanco, 1; Guayábo, 14).

**\**Sporophila torqueola sharpei* Lawrence.<sup>2</sup> SHARPE'S SEED-EATER.**

<sup>1</sup> The black-throated form (var. *mutanda*) is a mutational variation of *S. t. morelleti*, its occurrence being obviously restricted to Guatemala. While more frequent on the Pacific slope of the country, it is sometimes also found in the interior, though up to date not a single specimen of this variety has been recorded from any of the Atlantic provinces. In a series of nine adult males from the Pacific side (San José, Retalhuleu, Mazatenango) two only have the throat black (confluent with the pectoral band), two others are wholly white-throated and not distinguishable from specimens taken in Alta Vera Paz and at Los Amates, and the four remaining ones are variously intermediate. Carriker and de Schauensee have already pointed out that typical white-throated examples (*morelleti*) also occur on the Pacific side together with *mutanda*, but we cannot possibly follow their conclusion that these varieties are specifically distinct. Such a conception is disproved not only by the two being connected by every imaginable intermediate, but also by the consideration that similar variation has been observed in other species of seed-eaters (f. i. *S. aurita*).

*Additional material examined*.—Mexico: Chiapas, 5.—Guatemala, 19.—Honduras: San Pedro Sula, 7.—Costa Rica, 11.

<sup>2</sup> *Sporophila torqueola sharpei* Lawrence: Similar to *S. t. morelleti*, but black pectoral band in adult male only suggested by black mottling; female paler buff underneath and less brownish, more olivaceous above.

It appears that most of the characters used by Allen for distinguishing *sharpei* are of seasonal nature. However, the absence of the complete black pectoral band in males, and the paler coloration of the females serve to differentiate the form

*Sporophila moreletii sharpei* Lawrence, Auk, 6, p. 53, Jan., 1889—Lomita, Texas (type in the American Museum of Natural History, New York); Allen, Auk, 24, p. 26, 1907 (crit., char., range); Phillips, Auk, 28, p. 89, 1911—Matamoros, Tamaulipas; Friedmann, Auk, 42, p. 551, 1925—lower Rio Grande Valley; Griscom and Crosby, Auk, 43, p. 26, 1926—Brownsville, Texas.

*Spermophila albigularis* (not *Loxia albigularis* Spix) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 5, p. 124, 1852—Texas (descr.).

*Spermophila moreletii* (not of Bonaparte) Baird, Rep. Expl. Surv. R. R. Pacif., 9, p. 506, 1858—Texas and Nuevo León (San Diego, Monterrey); idem, Bds. N. Amer., atlas, pl. 54, figs. 2, 3, 1860; idem, Rep. U. S. Mex. Bound. Surv., 2, (2), p. 17, pl. 16, figs. 2, 3, 1859—San Diego and Monterrey, Nuevo León.

*Spermophila moreletii* Sclater, Ibis, 1871, p. 10—part, Texas and Nuevo León; Merrill, Proc. U. S. Nat. Mus., 1, p. 129, 1878—Fort Brown, Texas (habits, nest, and eggs); Sennett, Bull. U. S. Geol. Geog. Surv. Terr., 5, p. 393, 1879—Lomita, Texas (habits, crit., descr. of young).

*Spermophila parva* (not of Lawrence) Sharpe, Cat. Bds. Brit. Mus., 12, p. 124, 1888—part, spec. a-c, Lomita, Texas and Mexico.

*Sporophila moreletii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 575, 1901—part, lower Rio Grande, Texas, and northeastern Mexico (Nuevo León, Tamaulipas, San Luis Potosí, (?)Guanajuato, (?)Hidalgo, and (?)Puebla).

*Range.* Lower Rio Grande Valley, Texas, and northeastern Mexico (in states of Nuevo León, Tamaulipas, and San Luis Potosí, southern limit undetermined).

9: Texas (Hidalgo, 1; Lomita, 1; Cameron County, 1); Mexico (Tampico, Tamaulipas, 2; Valles, San Luis Potosí, 4).

**\**Sporophila aurita corvina* (Sclater).<sup>1</sup> BLACK SEED-EATER.**

*Spermophila corvina* Sclater, Proc. Zool. Soc. Lond., 27, p. 379, 1859—Playa Vicente, Oaxaca, Mexico (descr. of male; type in coll. of P. L. Sclater, now in British Museum); Sclater and Salvin, Ibis, 1860, p. 33—Izabal, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 105, 1862—Oaxaca and Honduras; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 180, 1865—Greytown, Nicaragua; idem, l.c., 9, p. 102, 1868—Costa Rica (Angostura, Pacuare, Turrialba); Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 278—Bluefields, Nicaragua; idem, l.c., 1870, p. 836—San Pedro, Honduras; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—near Orizaba, Vera Cruz; Frantz, Journ. Orn., 17, p. 301, 1869—"southwestern side" of

from the lower Rio Grande Valley and the adjacent parts of northeastern Mexico. The southward extension of its range remains yet to be determined.

<sup>1</sup>*Sporophila aurita corvina* (Sclater) is nothing but the Caribbean representative of the *aurita* group. It is very constant throughout its range, but almost complete intergradation is furnished by individual variation of *aurita* in the Canal Zone. One male collected by A. Boucard near Colón (Munich Museum) is nearly wholly black, and merely differs from *corvina* by having some white on rump, sides of neck, and under tail coverts, and a larger white wing-speculum. The females of the two "species" are, besides, exceedingly similar.

Costa Rica (errore); Sclater, Ibis, 1871, p. 16 (monog.); Salvin, Ibis, 1872, p. 317—Chontales, Nicaragua; Boucard, Proc. Zool. Soc. Lond., 1878, p. 58—San Carlos, Costa Rica; idem, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 45, 1878—Guatemala; Nutting, Proc. U. S. Nat. Mus., 6, p. 401, 1884—Los Sábalos, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 355, 1885—Mexico to Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 12, p. 137, 1888—Mexico (Oaxaca), Guatemala (Vera Paz, Choctum), Honduras, Nicaragua (Chontales), and Costa Rica (Pacuare, Angostura, Turrialba).

*Spermophila badiiventris* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 172, 1865—Greytown, Nicaragua (descr. of immature male; type in U. S. National Museum); Baird, Trans. Chicago Acad. Sci., 1, p. 319, pl. 28, fig. 3, 1869—Greytown.

*Sporophila corvina* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 169—"San José," Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Costa Rica (Jiménez, Las Trojas, Angostura); Ridgway, Proc. U. S. Nat. Mus., 10, p. 580, 1887—Segovia River, Honduras; Richmond, l.c., 16, p. 492, 1893—Rio Escondido, Nicaragua (habits, nest, and eggs); Lantz, Trans. Kansas Acad. Sci., 16, p. 223, 1899—Chocan River, Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 571, 1901 (monog.); Bangs, Bull. Mus. Comp. Zool., 39, p. 156, 1903—Ceiba and Yaruca, Honduras; Carriker, Ann. Carnegie Mus., 6, p. 890, 1910—Costa Rica (range, nest and eggs); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 281, 1910—Guayábo and Port Limón, Costa Rica; Rendahl, Ark. Zool., 12, No. 8, p. 31, 1919—Talamanca (Sipurio), Costa Rica, and San Juan del Norte, Nicaragua; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 461, 1928—Almirante, northwestern Panama; Peters, Bull. Mus. Comp. Zool., 69, p. 466, 1929—Lancetilla, Honduras; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 241, 1932—Eden and Bluefields, Nicaragua; Stone, l.c., p. 340, 1932—Lancetilla, Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 350, 1932—Finca Chamá, Chimoan, and Chipoc, Caribbean Guatemala; idem, Bull. Mus. Comp. Zool., 78, p. 379, 1935—Almirante and Rio Calovévora, Panama.

*Range*.—Tropical zone of the Caribbean slope of southeastern Mexico (in states of Vera Cruz and Oaxaca), Guatemala, Honduras, Nicaragua, Costa Rica, and western Panama, east to the Rio Calovévora, Veraguas.<sup>1</sup>

20: Guatemala ("Vera Paz," 1; Bobos, Izabal, 1); Nicaragua (San Emilio, Lake Nicaragua, 2); Costa Rica (Limón, 9; Matina, 5; Guayábo, 1; Siquirres, 1).

<sup>1</sup> The species is confined to the Caribbean lowlands. Its occurrence on the Costa Rican plateau seems to be exceptional. Cassin records a single male collected by J. Carmiol at San José, but perhaps this locality is not exact.

*Additional material examined*.—Guatemala: Choctum, Alta Vera Paz, 4.—Honduras: San Pedro Sula, 2.—Costa Rica: Cachí, 2; Castilla, Rio Reventazón, 6; unspecified, 2.

**\**Sporophila aurita aurita* (Bonaparte). HICKS'S SEED-EATER.**

*Spermophila aurita* Bonaparte, Consp. Gen. Av., 1, (2), p. 497, (end of) 1850—"Brésil," errore (descr. of male; type said to be in Paris Museum);<sup>1</sup> Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 333, 1861—Lion Hill, Panama; Sclater, Ibis, 1871, p. 14, pl. 2, figs. 1, 2—western Colombia (Buena-ventura), Panama, Veraguas, and Costa Rica (monog.); Boucard, Proc. Zool. Soc. Lond., 1878, p. 58—San Mateo, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 354, 1885—Costa Rica and Panama; Sharpe, Cat. Bds. Brit. Mus., 12, p. 133, 1888—part, spec. a-g, Costa Rica to Panama (Lion Hill, Paraiso Station, Santa Fé, Calovévora, Mina de Chorchá, Chitrá, Bugaba, Chiriquí); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 4, 1899—Punta de Sabana, Darien.

*Sporophila hoffmanni* Cabanis, Journ. Orn., 9, p. 6, 1861—Costa Rica (descr. of black-throated variety of male; type in Berlin Museum).

*Spermophila lineata* (not *Loxia lineata* Gmelin) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 474, 1862—Panama Railroad.

*Spermophila semicollaris* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 10, May, 1863—Lion Hill, Panama Railroad (descr. of black-throated, black-rumped variety of male; type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 352—Lion Hill; Salvin, l.c., 1867, p. 141—Mina de Chorchá, Chitrá, Calovévora, and Santa Fé, Veraguas; idem, l.c., 1870, p. 189—Bugaba, Chiriquí (crit.).

*Spermophila hicksii* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 171, Oct., 1865—Panama (descr. of white-throated variety of male; type in U. S. National Museum).

*Spermophila fortipes* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 172, Oct., 1865—line of Panama Railroad, New Granada (descr. of intermediate variety of male; type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York).

*Spermophila collaris* (not *Loxia collaris* Boddaert) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 177, Oct., 1865—David, Chiriquí (descr. of black-throated variety of male; type in U. S. National Museum); Salvin, Proc. Zool. Soc. Lond., 1867, p. 141—David.

*Sporophila aurita* Cherrie, Anal. Inst. Fis.-Geogr. y Mus. Nac. Costa Rica, 4, p. 140, 1893—Térraba and Buenos Aires, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 2, p. 33, 1900—Loma del León, Panama; idem, Auk, 18, p. 370, 1901—Divalá, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 573, 1901—part, Costa Rica to Panama (monog.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 224, 1906—savanna

<sup>1</sup> Although the type was examined by Sclater (Ibis, 1871, p. 15), I looked in vain for it when at Paris in June, 1935. Bonaparte's description seems to refer to a male without white on the rump and with wholly black throat and chest, the prevailing color type found in the Panama Canal Zone.

*Pyrrhula albocollaris* Lesson (Traité d'Orn., livr. 6, p. 450, Feb., 1831—no locality indicated), of which the type has disappeared (cf. Pucheran, Rev. Mag. Zool., nouv. sér., 6, p. 68, 1854), possibly belongs here, but the description is too indefinite.

of Panama; Bangs, Auk, **24**, p. 311, 1907—Boruca, Paso Real, El Pozó, and Barránca de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., **6**, p. 888, 1910—Pígres, Pózo Azul de Pirrís, Buenos Aires, El General de Térraba, Bolson, Boruca, etc., Costa Rica (habits); Stone, Proc. Acad. Nat. Sci. Phila., **70**, p. 275, 1918—Gatún, Panama; Bangs and Barbour, Bull. Mus. Comp. Zool., **65**, p. 229, 1922—Mount Sapo, Darien; Hallinan, Auk, **41**, p. 321, 1924—Mindi, near Corozal, Sosa Hill, New Culebra, and Farfan, Canal Zone.

*Sporophila aurita aurita* Chapman, Bull. Amer. Mus. N. H., **36**, p. 557, 1917—Dabeiba, Quibdó, Bagado, Nóvita, and Noanamá, Colombia (crit.); Griscom, Bull. Mus. Comp. Zool., **69**, p. 183, 1929—Cana, Darien; idem, l.c., **72**, p. 371, 1932—Permé and Obaldia, eastern Panama; idem, l.c., **78**, p. 379, 1935—Panama.

*Spermophila ophthalmica* (not of Sclater) Sharpe, Cat. Bds. Brit. Mus., **12**, p. 120, 1888—part, spec. g, Chocó Bay, Colombia.

*Sporophila ophthalmica* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1098—mouth of Calima and Guineo, Chocó, Colombia (crit.).

*Sporophila aurita ophthalmica* Chapman, Bull. Amer. Mus. N. H., **36**, p. 558, 1917—San José, Los Cisneros, Tumaco, and Barbacoas, southwestern Colombia (crit.).

*Range.* Tropical zone of Pacific Costa Rica (north to southern Guanacaste), Panama, and Colombia south to Tumaco and Barbacoas, Nariño.<sup>1</sup>

19: Costa Rica (Buenos Aires, 6; Boruca, 1; El Pózo, Rio Térraba, 3); Panama (Colón, 5; Balboa, 1; Barro Colorado, 1; near Darien, 1); Colombia (Quibdó, Rio Atrato, 1).

**\**Sporophila aurita ophthalmica* (Sclater).<sup>2</sup> SPECTACLED SEED-EATER.**

<sup>1</sup> The extraordinary variation of this form has been admirably set forth by Chapman (Bull. Amer. Mus. N. H., **55**, p. 610, 1926), and it is quite possible that extensive material may lead to the recognition of several, though more or less ill-defined, local races. Males from Costa Rica and Chiriquí *generally* have the throat and breast black with a narrow, medially often incomplete, white collar; those from the Panama Canal Zone as a rule lack this collar, as well as the white rump, and are sometimes wholly black down to the vent, thus approaching *S. a. corvina*; those from Darien and western Colombia, finally, have the lower throat largely white and form an almost unbroken chain to *ophthalmica*. Exceptions from these prevailing color-types being not infrequent, definition of any geographically circumscribed units is a matter of considerable difficulty.

*Additional material examined.*—Costa Rica: Bebedéro, 1; Puerto Jiménez, 2; Pózo Azul de Pirrís, 1; Buenos Aires, 3; El General de Térraba, 5; Térraba, 2.—Panama: Chiriquí, 5; El Banco, Chiriquí, 2; Panamá Railroad, 4; Punta de Sabana, Darien, 1.—Colombia: Buenaventura, 1; Rio Calima, 3; Los Cisneros, 2; Sipí, 1.

<sup>2</sup> *Sporophila aurita ophthalmica* (Sclater) differs in the male sex, from Chocó examples of *S. a. aurita* by narrower black pectoral band and extensively white throat.

Birds from Esmeraldas Province invariably have the pectoral band wider, and at the base of the bill on each side a small black malar spot, which is entirely absent in four from Guayaquil. The inhabitants of northwestern Ecuador thus

*Spermophila ophthalmica* Selater, Proc. Zool. Soc. Lond., 28, p. 276, 1860—Babahoyo, Ecuador (cotypes in coll. of P. L. Selater, now in British Museum); idem, l.c., p. 293, 1860—Esmeraldas, Ecuador; idem, Cat. Coll. Amer. Bds., p. 103, 1862—Babahoyo and Esmeraldas; idem, Ibis, 1871, p. 11—Ecuador (monog.); Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 550—Guayaquil and Chimbo; idem, l.c., 1885, p. 84—Yaguachi; Sharpe, Cat. Bds. Brit. Mus., 12, p. 120, 1888—part, spec. a-f, h, Ecuador (Esmeraldas, Babahoyo, Santa Rita); Hartert, Nov. Zool., 5, p. 484, 1898—Cachaví; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 24, 1899—Vinces and Playas; Goodfellow, Ibis, 1901, p. 473—Santo Domingo.

*Sporophila aequatorialis* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 24, 1899—Balzar, Ecuador (cotypes in Turin Museum examined).

*Sporophila ophthalmica* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B75, 1911—Santo Domingo.

*Sporophila aurita ophthalmica* Chapman, Bull. Amer. Mus. N. H., 55, p. 609, 1926—Ecuador (Esmeraldas, Manaví, Daule, Duran, Bucay, Chimbo, Naránjo, Santa Rosa, Rio Jubones, Portovelo, Rio Pindo, Salvias, Cebollal, Alamor, Rio Pullango) and Peru (Palambla); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 235, 1932—Rio San Antonio, Ecuador.

*Sporophila aequatorialis* Chapman, Bull. Amer. Mus. N. H., 55, p. 611, 1926—Ecuador (ex Salvadori and Festa).

*Range*.—Tropical zone of western Ecuador and extreme north-western Peru (Palambla, Dept. Piura).

3: Ecuador (Puente de Chimbo, 1; Milagro, Prov. Guayas, 2).

## ***Sporophila aurita murallae* Chapman.<sup>1</sup> LA MURELIA**

### **SEED-EATER.**

*Sporophila aurita murallae* Chapman, Bull. Amer. Mus. N. H., 34, p. 649, Dec., 1915—"La Muralla," Caquetá, Colombia (type in the American

verge in the direction of *S. a. aurita* (or rather the yet unnamed, doubtfully separable Colombian race). Thanks to the courtesy of Dr. E. Festa, the cotypes, male and female, of *S. aequatorialis* have been available for examination. The male agrees in every particular with the Guayaquil examples, but differs by having the black breast-band widely interrupted in the middle and the uropygial feathers neutral gray with narrow dull whitish apical margins. The female is indistinguishable from the same sex of *S. ophthalmica*. I have no doubt whatever that the male type is merely an individual aberration, and not a distinct species. Its abnormal condition is suggested by the opaque black color of the tail with irregular, watermark-like bars on the inner web of the outermost rectrix and the presence of pale grayish-brown apical margins on the two outer pairs. The grayish rump is without significance in view of the variability observable in *S. a. aurita*. The dimensions (wing, 53; tail, 45; bill, 10) are exactly the same as in other Ecuadorian birds, and as no second specimen like the type has ever been taken in the region, though well worked by collectors, the admission of another species seems altogether unlikely.

*Additional material examined*.—Ecuador, Prov. Esmeraldas: Pambilár, 5; Carondelet, 6; San Javier, 16; Ventana, 1; Balzar, 2; Guayaquil, 6.

<sup>1</sup> *Sporophila aurita murallae* Chapman: "Most nearly related to *S. a. ophthalmica*, but larger throughout; the black breast-band averaging narrower (nearly incomplete in one specimen); sides grayer; white patch at base of primaries smaller;



Museum of Natural History, New York); idem, l.c., 36, p. 558, 1917—La Murelia, Colombia.

*Range.*—Tropical zone of southeastern Colombia (La Murelia, Caquetá).

**\**Sporophila americana americana* (Gmelin). GMELIN'S SEED-EATER.**

*Loxia americana* Gmelin, Syst. Nat., 1, (2), p. 863, 1789—based on "Black-breasted Grosbeak" Latham, Gen. Syn. Bds., 2, (1), p. 148; "some part of America"=Cayenne<sup>1</sup> (descr. of male; type lost, formerly in British Museum).

*Loxia pectoralis* Latham, Ind. Orn., 1, p. 390, 1790—based on "Black-breasted Grosbeak" Latham, Gen. Syn. Bds., 2, (1), p. 148; "America."

*Loxia semi-torquata* Richard and Bernard, Act. Soc. Hist. Nat. Paris, 1, (1), p. 118, 1792—Cayenne (descr. of male; location of type unknown).

*Pyrrhula misya* [sic] Vieillot, Hist. Nat. Ois. Chant. Zône Torr., p. 75, pl. 46, (=male), circa 1806—Cayenne (descr. of male; type in coll. of L. P. Vieillot).

*Loxia leucopterygia* Spix, Av. Spec. Nov. Bras., 2, p. 45, pl. 58, fig. 3, 1825—"in vicinitate Parae," Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 679, 1906).

*Sporophila americana* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 678, 1848 [=1849]—coast of British Guiana; idem, Mus. Hein., 1, p. 150, 1851—Surinam and Cayenne; Hellmayr, Verh. Zool. Bot. Gesells. Wien, 54, p. 531, 1904 (crit., synonym.); Ihering, Cat. Faun. Braz., 1, p. 376, 1907—Surinam (range); (?)Snethlage, Journ. Orn., 56, p. 524, 1908—Alcobaça, Rio Tocantins, Brazil; Berlepsch, Nov. Zool., 15, pp. 120, 317, 1908—Cayenne and St. Georges d'Oyapock, French Guiana; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 88, 104, 119, 1912—Pará localities and Mexiana (Fazenda Nazareth); Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 208, 1913—Pedernales and Caño Corozal, Orinoco Delta, Venezuela; Snethlage, Journ. Orn., 61, p. 521, 1913 (ecology); idem, Bol. Mus. Goeldi, 8, p. 429, 1914—Peixe-Boi, Quati-purú, Rio Guamá (Ourém), Rio Mojú, Rio Capim (Aproaga), (?) Rio Tocantins (Alcobaça), Marajó (São Natal, Pindobal), Aru-manduba, Monte Alegre, Rio Maecurú (Ig. de Paituna), and Rio Jamundá (Faro); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 90, 1918—vicinity of Paramaribo, Surinam; Chubb, Bds. Brit. Guiana, 2, p. 431, 1921—Ituribisci River, Supenaam, Bartica, Bonasica River, Abary River, and Anarika River.

lesser wing coverts narrowly tipped with white, greater ones less frequently with white near end of shaft. Wing (males), 58½–61; tail, 44–47½; bill, 12½–13." (Chapman, l.c.)

We are not acquainted with this form, which seems to be known only from the three original specimens (adult males) in the American Museum at New York. Should it not be compared rather with *S. americana*, which is certainly closely related to the *S. aurita* complex?

<sup>1</sup> As designated by Hellmayr (Verh. Zool. Bot. Gesells. Wien, 54, p. 532, 1904).

- Fringilla pectoralis* Lichtenstein, Verz. Doubl. Berliner Mus., p. 26, 1823—Pará.
- Spermophila misya* Jardine, Ann. Mag. Nat. Hist., 20, p. 333, 1847—Tobago.
- Spermophila mysia* Bonaparte, Consp. Gen. Av., 1, (2), p. 496, 1850—"Brazil"; idem, Bull. Soc. Linn. Normandie, 2, p. 30, 1857—Cayenne; Sclater, Cat. Coll. Amer. Bds., p. 121, 1862—Cayenne.
- Spermophila leucopterygia* Bonaparte, Consp. Gen. Av., 1, (2), p. 496, 1850 (ex Spix).
- Sporophila pectoralis* Burmeister, Syst. Uebers. Th. Bras., 3, p. 247, 1856—Pará and Guyana.
- Sporophila lineata* (not *Loxia lineata* Gmelin)<sup>1</sup> Burmeister, Syst. Uebers. Th. Bras., 3, p. 245, 1856—Pará (ex Spix).
- Spermophila lineata* Sclater, Cat. Coll. Bds. Amer., p. 104, 1862—Pará; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 572—Pará, Mexiana, and north side of Amazon, Brazil; Sclater, Ibis, 1871, p. 11—Guiana, Cayenne, and Pará (monog.); Salvin, Ibis, 1885, p. 214—Bartica Grove, British Guiana; Sharpe, Cat. Bds. Brit. Mus., 12, p. 121, 1888—Cayenne, British Guiana (Georgetown, Bartica Grove), Surinam (Albina), and Brazil (Pará, Mexiana, north side of Amazon); Cory, Auk, 10, p. 220, 1893—Tobago; Dalmas, Mém. Soc. Zool. France, 13, p. 138, 1900—Tobago; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 183, 1904—St. Georges d'Oyapock, French Guiana; Penard, Vog. Guyana, 2, p. 393, 1910—Surinam (nest and eggs).
- Sporophila collaria* (not *Loxia collaria* Linnaeus) Salvin, Ibis, 1885, p. 214—British Guiana (ex Schomburgk).
- Spermophila albigularis* (not *Loxia albogularis* Spix) Goeldi, Ibis, 1897, p. 162—Amapá, Brazil (spec. examined).
- Spermophila hypoleuca* (not *Fringilla hypoleuca* Lichtenstein) Goeldi, Ibis, 1903, p. 498—Rio Capim, Pará.
- Spermophila americana* Snethlage, Journ. Orn., 55, p. 296, 1907—Amapá, Marajó, Pará, and Rio Mojú, Brazil.
- Sporophila misya* Berlepsch, Nov. Zool., 15, p. 120, 1908—Cayenne, Ile-le-Père, and Roche-Marie, French Guiana.

*Range*.—Islands of Tobago and Trinidad; northeastern Venezuela (Pedernales and Caño Coroza, Orinoco Delta); British, Dutch, and French Guiana; northeastern Brazil, from the Guianan boundary south to the Pará region, west on the north bank of the Amazon to the Jamundá River, south of the river probably not beyond the Tocantins.<sup>2</sup>

<sup>1</sup> *Loxia lineata* Gmelin (Syst. Nat., 1, [2], p. 858, 1789), based on "Radiated Grosbeak" Latham (Gen. Syn. Bds., 2, [1], p. 156), cannot be identified with the present species, the bird being described as having a white bill, and the head, neck, breast, lesser wing coverts, and tail black, while the secondaries, sides of the body, and base half of the prime quills are said to be striated black and white, etc. It was named from a living specimen in the possession of the "Dutchess Dowager of Portland."

<sup>2</sup> Recent comparison of a Guianan series with a good number of skins from Tobago and the Pará region fails to reveal any constant differences. Six adult

7: British Guiana (Hyde Park, Demerara River, 2; Georgetown, 1; unspecified, 2); Island of Tobago, 2.

***Sporophila americana dispar* Todd.<sup>1</sup> SANTAREM SEED-EATER.**

*Sporophila americana dispar* Todd, Proc. Biol. Soc. Wash., 35, p. 90, July 12, 1922—Santarém, Brazil (type in Carnegie Museum).

*Spermophila mysia* (not *Pyrrhula misya* Vieillot) Allen, Bull. Essex Inst., 8, p. 79, 1876—Santarém.

*Sporophila lineata* (not *Loxia lineata* Gmelin) Riker and Chapman, Auk, 7, p. 268, 1890—Santarém.

*Range*.—Known only from Santarém, on the south bank of the lower Amazon, but probably extending east to the Rio Xingú or even to the Tocantins.

***Sporophila collaris*<sup>2</sup> *collaris* (Boddaert). COLLARED SEED-EATER.**

*Loxia collaris* Boddaert,<sup>3</sup> Tabl. Pl. Enl., p. 40, Dec., 1783—based on "Gros-Bec, d'Angola" Daubenton, Pl. Enl., pl. 659, fig. 2; "Angola," errore=

males from Pará, Mexiana, and Marajó are by no means larger nor have they the rump more extensively suffused with white than Cayenne specimens. On the contrary, the greatest amount of white is shown by an adult male collected at Cayenne by Cherrie and Gault. Two of the Tobago males have the rump darker as well as more uniform gray than the rest of the series, but others from the same island compare well with the average from Cayenne. The white alar speculum varies considerably within the same locality, it being smallest in one from Mexiana. The type of *L. leucopterygia*, a male with remains of immaturity, has a wing of 57 mm., and cannot be separated from Cayenne birds in corresponding plumage, except by its yellow (instead of black) bill. If *dispar* be maintained, it must have a more westerly range, whereas the inhabitants of the Pará region are to be referred to typical *americana*. The wing, in Cayenne males, ranges from 56 to 60; in those from Pará (including Mexiana and Marajó), from 56 to 59; in those from Tobago, from 57 to 60.

The British Museum has two females collected by P. R. Lowe on March 20, 1905, at Maqueripe Bay, Trinidad, which constitute the first record from the island.

*Additional material examined*. Tobago: Man o' War Bay, 8; Castare, 1; Lecito, 2.—Trinidad: Maqueripe Bay, 2.—British Guiana: Bartica Grove, 2.—French Guiana: Cayenne, 20; Isle-le-Père, 2; Roche-Marie, 2. —Brazil: Amapá, 1; São Natal, Marajó, 3; Nazareth, Mexiana, 1; Pará, 3.

<sup>1</sup> *Sporophila americana dispar* Todd: Similar to the nominate race, but slightly larger; rump in adult male more conspicuously mottled with white; female (according to Todd) much duller, brownish or grayish olive above and dull whitish below, shaded with buffy. Wing (male), 62; tail, 51.

A single adult male from Santarém is indeed slightly larger and has more conspicuous white mottling on the rump than any example we have examined from the Guianas, Tobago, and the Pará region. We are not acquainted with the female.

<sup>2</sup> *Sporophila collaris*, though allied to *S. americana*, presents various striking characters, notably a larger bill and two buffy wing-bands.

<sup>3</sup> The "Gros-Bec, appelé la Nonette" Daubenton (Pl. Enl., pl. 393, fig. 3), described and figured from a cage-bird of unknown origin, upon which *Loxia nonnette* P. L. S. Müller (Natur syst., Suppl., p. 151, 1776) and *Loxia cucullata* Boddaert (not of Müller, 1776) (Tabl. Pl. Enl., p. 24, 1783) are based, is too ambiguous to be identified, though it might have been intended for a member of this group.

Rio de Janeiro, as designated by Hellmayr (Verh. Zool. Bot. Gesells. Wien, **54**, p. 534, 1904).

*Fringilla atricapilla* Wied, Beitr. Naturg. Bras., **3**, (1), p. 569, 1830—Rio Espirito Santo, southeastern Brazil (type lost; cf. Allen, Bull. Amer. Mus. N. H., **2**, p. 224, 1869).

*Sporophila leucopsis* Cabanis, Journ. Orn., **9**, p. 5, 1861—habitat ignota (descr. of male; type in Berlin Museum examined).

*Spermophila americana* (not *Loxia americana* Gmelin) Bonaparte, Consp. Gen. Av., **1**, (2), p. 496, 1850—part, Brazil.

*Sporophila collaria* (not *Loxia collaria* Linnaeus)<sup>1</sup> Burmeister, Syst. Uebers. Th. Bras., **3**, p. 246, 1856—part, Espirito Santo (ex Wied); Ihering, Cat. Faun. Braz., **1**, p. 376, 1907—Rio de Janeiro and Goyáz.

*Spermophila collaria* Sclater, Ibis, 1871, p. 9—part, Rio de Janeiro (descr.).

*Spermophila atricapilla* Pelzeln, Orn. Bras., **3**, p. 223, 1870—Rio de Janeiro and Rio Araguaya, Goyáz (spec. examined); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 224—Rio de Janeiro and Lagõa Santa, Minas Geraes.

*Spermophila cucullata* (not *Loxia cucullata* Boddaert nor Müller) Sclater, Cat. Coll. Amer. Bds., p. 103, 1862—Brazil.

[*Spermophila cucullata*] subsp. *a* *Spermophila polionota* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 118, 1888—Rio de Janeiro, Brazil (type in British Museum examined).

*Sporophila collaris* Hellmayr, Verh. Zool. Bot. Ges. Wien, **54**, p. 534, 1904 (crit., nomencl., range).

*Sporophila melanocephala ochrascens* (not of Hellmayr) Pinto, Rev. Mus. Paul., **20**, p. 144, 1936—Inhúmas, Rio Meia Ponte, Goyáz, and Ataphona, Rio de Janeiro (crit.).

*Range*.—Southeastern Brazil, in states of Espirito Santo, Rio de Janeiro, Minas Geraes (Lagõa Santa), and Goyáz (Rio Araguaya; Inhúmas, Rio Meia Ponte).<sup>2</sup>

**\**Sporophila collaris ochrascens* Hellmayr.<sup>3</sup> OCHRACEOUS  
SEED-EATER.**

<sup>1</sup> *Loxia collaria* Linnaeus (Syst. Nat., 12th ed., **1**, p. 305, 1766), an Indian bird with bare forehead and of yellowish green coloration with bright yellow breast and collar.

<sup>2</sup> *Material examined*.—Brazil: Rio de Janeiro, 8; Rio Araguaya, Goyáz, 2.

<sup>3</sup> *Sporophila collaris ochrascens* Hellmayr: Similar in the male sex to *S. c. melanocephala*, but sides of neck and under parts much paler, ochraceous-buff instead of tawny; median line of breast and abdomen extensively light buff or pinkish buff; nuchal collar medially interrupted; uropygial band narrower and paler, ochraceous tawny rather than tawny; female indistinguishable. Wing, 56–59, (female) 53–57; tail, 49–54.

Birds from Mojos (*pallida*) are precisely similar to the type and other specimens from the interior of Brazil. One (out of three) from Cuyabá, which I at one time have referred to *melanocephala*, is an intergrade between the two races, while two from Carandásinho, in southwestern Matto Grosso, are so close to the Paraguayan form that I have no hesitation in calling them *melanocephala*. *S. c. ochrascens*, in fact, is a connecting link between the eastern *S. c. collaris*, with nearly

*Sporophila melanocephala ochrascens* Hellmayr, Verh. Zool. Bot. Gesells. Wien, **54**, p. 534, 1904—Rio Paraná, northern São Paulo, Brazil (type in Vienna Museum); Ihering, Cat. Faun. Braz., **1**, p. 376, 1907—São Paulo (Jaboticabal, Avanhandava, Barretos, Itapura); Naumburg, Bull. Amer. Mus. N. H., **60**, p. 347, 1930—Descalvados and Palmiras, Matto Grosso; Stone and Roberts, Proc. Acad. Nat. Sci. Phila., **86**, p. 396, 1934—Descalvados, Matto Grosso.

*Sporophila melanocephala pallida* Carriker, Proc. Acad. Nat. Sci. Phila., **87**, p. 339, Oct. 10, 1935—Chatarona (near Reyes), Beni, Bolivia (type in the Academy of Natural Sciences, Philadelphia).

*Pyrrhula melanocephala* (not *Coccothraustes melanocephala* Vieillot) Lafresnaye and d'Orbigny, Syn. Av., **1**, in Mag. Zool., **7**, cl. 2, p. 87, 1837—part, Mojos and Guayaros, Bolivia (spec. in Paris Museum examined).

*Spermophila americana* (not *Loxia americana* Gmelin) Bonaparte, Consp. Gen. Av., **1**, (2), p. 496, 1850—part, Bolivia.

*Sporophila collaria* (not *Loxia collaria* Linnaeus) Burmeister, Syst. Uebers. Th. Bras., **3**, p. 246, 1856—part, Bolivia.

*Spermophila collaria* Scater, Ibis, 1871, p. 9—part, Brazil (Rio Paraná, Cuyabá) and Bolivia (Mojos, Guarayos); Scater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 604—Mojos and Guayaros.

*Spermophila cucullata* (not *Loxia cucullata* Boddaert nor Müller) Pelzel, Orn. Bras., **3**, p. 223, 1870—Rio Paraná, São Paulo, and Cuyabá, Matto Grosso; Sharpe, Cat. Bds. Brit. Mus., **12**, p. 116, 1888—Cuyabá; Ménégau, Rev. Franç. d'Orn., **5**, p. 85, 1917—São Luiz de Cáceres, Matto Grosso.

*Range*.—Interior of Brazil, from the northern parts of São Paulo across to northern and western Matto Grosso, and the eastern districts of Bolivia (Chiquitos, Mojos, and El Beni).

**1**: Brazil (Descalvados, Matto Grosso, 1).

**\**Sporophila collaris melanocephala* (Vieillot). BLACK-HEADED SEED-EATER.**

*Coccothraustes melanocephala* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., **13**, p. 542, 1817—based on "Pico grueso cejita blanca" Azara, No. 124; Paraguay.

*Pyrrhula melanocephala* Lafresnaye and d'Orbigny, Syn. Av., **1**, in Mag. Zool., **7**, cl. 2, p. 85, 1837—part, Corrientes, Argentina.

white under parts and sides of neck, and the deeply colored, tawny-bellied *S. c. melanocephala*. The palest individuals of *ochrascens* run very near to certain Rio specimens, differing merely by deeper buff sides of neck and abdomen, as well as by the possession of an ochraceous tawny uropygial band, which, in the race of eastern Brazil, is but faintly suggested by a dull buffy tinge across the rump. There is no reason, therefore, to maintain the specific rank of *melanocephala*, inasmuch as females of the three forms are in no wise distinguishable.

*Material examined*.—Brazil: Porto do Rio Paraná, São Paulo, 2; Cuyabá, Matto Grosso, 5; Villa Bella de Matto Grosso, Matto Grosso, 2.—Bolivia: Chiquitos, 1; Mojos, El Beni, 2.

- Spermophila lafresnayi* Bonaparte, Consp. Gen. Av., 1, (2), p. 496, 1850—Corrientes, Argentina (descr. of male; type in Paris Museum examined).
- Spermophila melanocephala* Hartlaub, Syst. Index Azara, p. 9, 1847—Paraguay (ex Azara, No. 124); Sclater and Hudson, Arg. Orn., 1, p. 45, 1888—Punta Lara, Buenos Aires; Sharpe, Cat. Bds. Brit. Mus., 12, p. 118, 1888—Punta Lara; Kerr, Ibis, 1892, p. 125—Fortín Page, lower Pilcomayo; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 5, 1900—Urucúm and Carandasinho, Matto Grosso (spec. in Turin Museum examined); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 177, 1902—Tucumán (sight record); idem, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—Lagunas de Malvinas, Tucumán; Giacomelli, El Hornero, 3, p. 69, 1923—La Rioja (rare).
- Spermophila collaria* (not *Loxia collaria* Linnaeus) Sclater, Ibis, 1871, p. 9—part, Paraguay.
- Sporophila americana* (not *Loxia americana* Gmelin) Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes.
- Spermophila* sp. Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 5, 1900—Paraguari and Colonia Risso, Paraguay (spec. examined).
- Sporophila melanocephala* Allen, Bull. Amer. Mus. N. H., 3, p. 368, 1891—Corumbá, Matto Grosso; Ihering, Cat. Faun. Braz., 1, p. 375, 1907 (range); Chubb, Ibis, 1910, p. 633—Sapucay, Paraguay; Grant, Ibis, 1911, p. 95—Monte Alto and Desaguadero, Paraguay; Bertoni, Faun. Parag., p. 65, 1914—Asunción and Chaco, Paraguay; Pereyra, El Hornero, 3, p. 171, 1923—Zelaya, Buenos Aires.
- Sporophila melanocephala melanocephala* Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 533, 1904 (crit., range); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, pp. 384, 436, 1910 (range in Argentina); idem, l.c., 23, p. 361, 1912—Villa Rica, Paraguay; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 658, 1924—Punta Lara, Buenos Aires; Wetmore, Bull. U. S. Nat. Mus., 133, p. 401, 1926—Las Palmas, Chaco, and west of Puerto Pinasco, Paraguay; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 243, 1930—San José, Formosa (crit.).
- Spermophila melanocephala melanocephala* Hartert and Venturi, Nov. Zool., 16, p. 175, 1909—Mocoví, Santa Fé, and Barracas al Sud, Buenos Aires.
- Range.**—Southwestern Matto Grosso (Corumbá, Carandasinho, Urucúm); Paraguay; and northern Argentina, from Formosa, Chaco, and Santa Fé east to Corrientes, west to Tucumán (Laguna de Malvinas) and La Rioja; rare in Buenos Aires (Punta Lara, Zelaya, Barracas al Sud).<sup>1</sup>

1: Argentina (Las Palmas, Chaco, 1).

<sup>1</sup> Birds from Argentina and Paraguay agree very well together. Two males from Carandasinho, Matto Grosso, while having the middle of the belly narrowly buffy, show the complete deep tawny nuchal collar, the broad tawny uropygial band, and the intensely colored breast and sides of Paraguayan specimens, so that I cannot but refer them to *melanocephala*.

**Additional material examined.**—Brazil, Matto Grosso: Carandasinho, 2; Urucúm, 1.—Paraguay: Bernalcué, near Asunción, 3; Colonia Risso, 1; Paraguari, 1; Sapucay, 2; island near Villa Concepción, 2; unspecified, 1.—Argentina: Corrientes, 1; Mocoví, Santa Fé, 2; San José, Formosa, 4; Barracas al Sud, Buenos Aires, 1.

**\**Sporophila luctuosa* (Lafresnaye). BLACK-AND-WHITE  
SEED-EATER.**

*Spermophila luctuosa* Lafresnaye, Rev. Zool., 6, p. 291, 1843—"Colombia"—Bogotá (descr. of male; cotypes in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 372, 1930); Bonaparte, Consp. Gen. Av., 1, (2), p. 497, 1850—Colombia, "Brazil," and Peru; Sclater, Proc. Zool. Soc. Lond., 23, p. 160, 1855—"Bogotá"; idem, l.c., 26, p. 72, 1858—Rio Napo, Ecuador; idem, l.c., p. 455, 1858—Gualaquiza and Zamora, Ecuador; idem, Cat. Coll. Amer. Bds., p. 105, 1862—Bogotá; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 750—Xeberos and Chyavetas, Peru; idem, l.c., 1869, p. 597—Cosnipata, Peru; Sclater, Ibis, 1871, p. 15 (monog.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 264—Xeberos and Chyavetas, Peru; Taczanowski, l.c., 1874, p. 519—Monterico and Higos, Peru; Sclater and Salvin, l.c., 1879, pp. 507, 605—Medellin, Colombia, and Simacu, Yungas, Bolivia; Salvin and Godman, Ibis, 1880, p. 122—San José and San Sebastian, Santa Marta region, Colombia; Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 17—Huambo and Yurimaguas, Peru; Berlepsch and Taczanowski, l.c., 1884, p. 293—Bugnac, Ecuador; idem, l.c., 1885, p. 84—Mapoto and Machay, Ecuador; Taczanowski, Orn. Pér., 3, p. 10, 1886—Peru (Monterico, Higos, Huambo, Yurimaguas, Chirimoto, Ninabamba); Sharpe, Cat. Bds. Brit. Mus., 12, p. 135, 1888—Colombia (Bogotá, Medellin, San Sebastian), Ecuador (Intag, "Sarayacu"), Peru (Cosnipata, Xeberos), and Bolivia (Simacu); Salvin, Nov. Zool., 2, p. 6, 1895—Cajabamba, Succha, and Viña (Huamachuco), Peru; Hartert, Nov. Zool., 5, p. 484, 1898—Ibarra and Paramba, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 24, 1899—Zamora and Gualaquiza, Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 458, 1930—near Huánuco, Vista Alegre, and Chinchao, Huánuco, Peru.

*Sporophila luctuosa* (Cabanis MS.) Tschudi, Arch. Naturg., 10, (1), p. 291, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 221, 1846—"Lima," Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 349—La Gloria and La Merced, Peru; Bangs, Proc. New Engl. Zool. Cl., 1, p. 79, 1899—San Sebastian and El Mamón, Colombia; Berlepsch and Stolzmann, Ornith., 13, p. 110, 1906—Escopal, Marcapata, Peru; Chapman, Bull. Amer. Mus. N. H., 36, p. 559, 1917—Barro Blanco and Anolaima, Colombia; Todd and Carriker, Ann. Carnegie Mus., 14, p. 513, 1922—Santa Marta region; Chapman, Bull. Amer. Mus. N. H., 55, p. 612, 1926—Ecuador (Loja, Sabanilla, Zamora, below Oyacachi, Baeza, lower Sumaco, junction Chanchan and Chiguancay, Cumbaya) and Peru (Virú, La Libertad).

*Pyrrhula leucomelas* Lesson, Echo du Monde Sav., 11e année, 2nd sérm., No. 10, col. 234, Aug. 4, 1844—"Amérique" (descr. of male; type in Abeillé Collection, Bordeaux).

*Sporophila luctuosa albilateralis* Carriker, Proc. Acad. Nat. Sci. Phila., 82, p. 374, Dec. 15, 1930—Acobamba, Dept. Junín, Peru (type in the Academy of Natural Sciences, Philadelphia).

*Range*.—Tropical and Subtropical zones of Colombia, Ecuador, Peru, and northwestern Bolivia (Simacu, Dept. La Paz).<sup>1</sup>

15: Colombia (Bogotá, 3); Peru (Yurimaguas, 2; Cajamarca, 2; Huánuco Mountains, Huánuco, 5; Vista Alegre, Huánuco, 2; Chinchao, Huánuco, 1).

**\**Sporophila caerulescens caerulescens* (Vieillot). SCREAMING SEED-EATER.**

*Coccothraustes collaris* (not *Loxia collaris* Boddaert) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 13, p. 524, 1817—based on "Pico grueso gargantilla" Azara, No. 125; Paraguay.

*Pyrrhula caerulescens* Vieillot, Tabl. Enc. Méth., Orn., livr. 93, p. 1023, 1817—"Brésil"—vicinity of Rio de Janeiro (type in Paris Museum examined; descr. of male).

*Fringilla leucopogon* Wied, Beitr. Naturg. Bras., 3, (1), p. 572, 1830—Rio Guajintibo, Rio de Janeiro (descr. of male; type lost, cf. Allen, Bull. Amer. Mus. N. H., 2, p. 223, 1889).

*Pyrrhula torquata* Lesson, Traité d'Orn., livr. 6, p. 450, Feb., 1831—"Brésil" (descr. of male; type in Paris Museum examined).<sup>2</sup>

*Spermophila nigrogularis* Gould, in Darwin, Zool. Beagle, Birds, Part 3, p. 88, Nov., 1839—Montevideo, Uruguay (descr. of male and female; cotypes now in British Museum).

*Pyrrhula ornata* (not *Fringilla ornata* Lichtenstein) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 86, 1837—Yungas, Bolivia (descr. of female).

*Spermophila ornata* Hartlaub, Syst. Ind. Azara, p. 9, 1847—Paraguay (ex Azara, No. 125); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 632—Conchitas, Buenos Aires; Pelzeln, Orn. Bras., 3, p. 224, 1870—Rio de Janeiro, São Paulo (Mattodentro, Ypanemá, Itararé), Paraná (Curytuba), and Matto Grosso (Poruti, Villa Bella); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 412—Minas Geraes (São Domingo), Rio de Janeiro (Nova Friburgo), and São Paulo (Campinas, Ypanemá, Hytú, São Bento); Durnford, Ibis, 1877, p. 170—Prov. Buenos Aires (nest descr.).

<sup>1</sup> Males from Colombia and Ecuador *generally* have the sides and flanks more solidly black with very little white spotting, while the same parts in Peruvian birds are largely variegated with white, the black becoming sometimes nearly evanescent. There are, however, many exceptions to this rule, and three specimens (out of five) from Marcapata have just as much black on the sides as any from Bogotá. The coloration of the females, regardless of locality, is exceedingly variable.

*Additional material examined*.—Colombia: San Sebastian, 2; Medellin, 1; Bogotá, 19.—Ecuador: Bugnac, 1; Ibarra, 2; Paramba, 1; Sarayacu, 2; Gualaquiza, 8.—Peru: Huambo, 1; Succha, Huamachuco, 2; Santiago, Huamachuco, 1; Pozúzo, Huánuco, 1; La Gloria, Vitoc, Junfn, 1; Cosnipata, Cuzco, 3; Caradoc, Marcapata, 2; Marcapata Valley, 3.

<sup>2</sup> The type is the very same example that served as basis for *P. caerulescens* Vieillot. Lesson's description is faulty with respect to the coloration of the head and back.



*Sporophila ornata* Cabanis, Mus. Hein., 1, p. 149, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 243, 1856—Rio de Janeiro (Rio Macacú, Nictheroy) and Minas Geraes (spec. from Congonhas in Halle Museum examined); idem, Journ. Orn., 8, p. 256, 1860—Mendoza and Paraná; idem, Reise La Plata St., 2, p. 488, 1861—same localities; Cabanis, Journ. Orn., 22, p. 84, 1874—Cantagallo, Rio de Janeiro.

*Spermophila caerulescens* Bonaparte, Consp. Gen. Av., 1, p. 498, 1850—Brazil; Sclater, Cat. Coll. Amer. Bds., p. 104, 1862—Brazil; idem, Ibis, 1871, p. 12 (monog.); Hamilton, Ibis, 1871, p. 303—near São Paulo, Brazil; Berlepsch, Journ. Orn., 21, p. 246, 1873—Blumenau, Santa Catharina; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 604—Simacu, Yungas, Bolivia; White, l.c., 1882, p. 598—Flores, Buenos Aires; Barrows, Bull. Nutt. Orn. Cl., 8, p. 92, 1883—Concepción del Uruguay, Entre Ríos (nest and eggs descr.); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 122, 1885—Taquara, Rio Grande do Sul; Sclater and Hudson, Arg. Orn., 1, p. 46, 1888—Argentina (habits); Sharpe, Cat. Bds. Brit. Mus., 12, p. 126, 1888—part, spec. h-b', Rio de Janeiro, "Pelotas" (Rio Grande do Sul), Montevideo, Buenos Aires (Barracas, Flores, Conchitas), Mendoza, and Simacu (Bolivia); Holland, Ibis, 1890, pp. 425, 426—Est. Espartillar, Buenos Aires; Kerr, Ibis, 1892, p. 125—Fortín Page, lower Pilcomayo; Holland, Ibis, 1892, p. 196—Est. Espartillar; Aplin, Ibis, 1894, p. 168—Soriano, Uruguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 5, 1895—San Pablo (Tucumán), Colonia Risso (Paraguay), and Corumbá (Matto Grosso); idem, l.c., 12, No. 292, p. 8, 1897—Aguaienda and Caiza, Bolivia; idem, l.c., 15, No. 378, p. 5, 1900—Uru-cúm, Matto Grosso; idem, Ann. Mus. Civ. Stor. Genova, 40, p. 622, 1900—Penguin Rookery, Staten Island; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 120, 1899—Mundo Novo and Pedras Brancas, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 162, 1899—São Paulo (Piquete, Iguapé, São Sebastião, São Paulo); idem, l.c., 4, p. 154, 1900—Cantagallo, Rio; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 177, 1902—Tucumán; Baer, Ornith., 12, p. 216, 1904—Santa Ana and Tapia, Tucumán; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—Tucumán; Giacomelli, El Hornero, 3, p. 69, 1923—La Rioja.

*Sporophila caerulescens* Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—lower Beni, Bolivia; Stempelmann and Schulz, Bol. Acad. Cienc. Córdoba, 10, p. 398, 1890—Córdoba; Allen, Bull. Amer. Mus. N. H., 3, p. 368, 1891—Chapada, Matto Grosso; Ihering, Cat. Faun. Braz., 1, p. 376, 1907—São Paulo (Salto Grande do Rio Paranapanema, Cachoeira, Itararé, Piquete, São Sebastião, Iguapé, Ypiranga); Chubb, Ibis, 1910, p. 635—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 385, 1910 (range in Argentina); Grant, Ibis, 1911, p. 95—Buenos Aires (Los Yngleses, Ajó), Formosa (Colonia Mihanovitch), and Entre Ríos (Santa Elena); Dabbene, Anal. Mus. Nac. Buenos Aires, 23, p. 362, 1912—Paso Yuvay, Paraguay; Bertoni, Faun. Parag., p. 64, 1914—Alto Paraná, Paraguay; Snethlage, Bol. Mus. Goeldi, 8, p. 430, 1914—Santa Julia, Rio Iriri, lower Amazon, Brazil; Hussey, Auk, 33, p. 397, 1916—La Plata; Sanzin, El Hornero, 1, p. 152, 1918—Mendoza; Tremoleras, l.c., 2, p. 23, 1920—Uruguay (Montevideo, Canelones, San José, Flores, Rio Negro); Renard,

l.c., 2, p. 60, 1920—Cañuelas, Buenos Aires; Daguerre, l.c., 2, p. 270, 1922—Rosas, Buenos Aires; Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 171, 1923—Zelaya, Buenos Aires; Dinelli, l.c., 3, p. 256, 1924—Tucumán (nest and eggs descr.); Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 658, 1924—Buenos Aires; Wilson, El Hornero, 3, p. 360, 1926—General López, Santa Fé; Wetmore, Bull. U. S. Nat. Mus., 133, p. 400, 1926—Chaco (Resistencia, Las Palmas), Uruguay (La Paloma, San Vicente, Lazcano, Rio Negro), and Mendoza (Tunuyán); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 187, 1926—Rio de Janeiro and Paraná (Marechal Mallet, Rio Claro, Invernadinha, Therezina, Salto Guayra); Friedmann, Bull. Mus. Comp. Zool., 68, p. 231, 1927—Concepción, Tucumán; Holt, Bull. Amer. Mus. N. H., 57, p. 315, 1928—Monte Serrat and Bemfica, Serra do Itatiaya, Brazil; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 243, 1930—San José and Yuncá Viejo, Formosa; Marelli, El Hornero, 5, p. 197, 1933—Sierra de la Ventana, Buenos Aires; Castellanos, l.c., 5, p. 319, 1934—Valle de los Reartes, Córdoba; Laubmann, Verh. Orn. Ges. Bay., 20, p. 325, 1934—Est. La Geraldina, Santa Fé.

*Spermophila obscura* (not *Emberiza obscura* Lafresnaye and d'Orbigny) Holland, Ibis, 1892, p. 196—Est. Espartillar, Buenos Aires (spec. in British Museum examined = young male).

*Sporophila caerulea* *caerulea* Dabbene, El Hornero, 1, p. 244, 1919—Isla Martín García, Buenos Aires; Naumburg, Bull. Amer. Mus. N. H., 60, p. 347, 1930—Urucúm and Descalvados, Matto Grosso; Pinto, Rev. Mus. Paul., 20, p. 146, 1936—Fazenda Thomé Pinto, Goyás.

*Range.*—Brazil, from Rio de Janeiro and Minas Geraes south to Rio Grande do Sul, west to Matto Grosso, also in Lower Amazonia on the Rio Iriri, an affluent of the Rio Xingú; Uruguay; Paraguay; northern Argentina, south to Buenos Aires, Córdoba, and Mendoza; eastern Bolivia; accidental on Staten Island.<sup>1</sup>

22: Bolivia (Parotani, Prov. Cochabamba, 1); Uruguay (Rio Uruguay, Dept. Soriano, 5); Argentina (Concepción, Tucumán, 14; Avellaneda, Prov. Buenos Aires, 1; Prov. Buenos Aires, 1).

<sup>1</sup> Within the range thus circumscribed some variation in the coloration of the adult males is observable, and the study of more extensive material might lead to further subdivision. The type, which we have examined, was secured by Delalande, Jr., who did not extend his travels beyond the vicinity of Rio de Janeiro, which, therefore, must be regarded as *terra typica*. Males from this district have the forehead back to the eye, the lores, cheeks, and auriculars blackish, hence conspicuously darker than the gray crown. Those from southern Brazil (São Paulo to Rio Grande do Sul), Matto Grosso, and Tucumán, as a rule have the blackish color more restricted to the forehead, while the lores and sides of the head are not so dark. An adult male from Aguiarenda, Bolivian Chaco, is precisely similar. Birds from the Bolivian Yungas are again slightly divergent, having the whole pileum as well as the sides of the head gray, like the crown, only the loreal region somewhat obscured. One from Songo, however, shows a distinct blackish frontal band like São Paulo skins, from which it merely differs by rather paler gray auriculars. A single adult male from the Rio Iriri, Lower Amazonia,

**Sporophila caerulescens ornata** (Lichtenstein).<sup>1</sup> BLACK-CAPPED SEED-EATER.

*Fringilla ornata* Lichtenstein, Verz. Doubl. Berliner Mus., p. 26, 1823—Bahia, Brazil (type in Berlin Museum).

*Spermophila ornata* Bonaparte, Consp. Gen. Av., 1, p. 497, 1850—Brazil; Berlepsch, Zeits. Ges. Orn., 2, p. 122 (note), 1885—Bahia (crit.).

*Spermophila caerulescens* (not *Pyrrhula caerulescens* Vieillot) Sharpe, Cat. Bds. Brit. Mus., 12, p. 127, 1888—part, spec. f, g, Bahia; Nicoll, Ibis, 1904, p. 40—Bahia.

*Range.*—Eastern Brazil, in State of Bahia (exact distribution unknown).

**Sporophila melanops** (Pelzeln).<sup>2</sup> BLACK-FACED SEED-EATER.

*Spermophila melanops* Pelzeln, Orn. Bras., 3, pp. 224, 331, 1870—Porto do Rio Araguaya, Goyáz, Brazil (descr. of male; type in Vienna Museum examined); Sclater, Ibis, 1871, p. 21 (ex Pelzeln); Sharpe, Cat. Bds. Brit. Mus., 12, p. 140, 1888 (ex Pelzeln).

*Sporophila melanops* Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 528, 1904—Rio Araguaya (descr., crit.); Ihering, Cat. Faun. Braz., 1, p. 378, 1907—Goyáz.

*Range.*—Interior of Brazil, in State of Goyáz (Porto do Rio Araguaya).

closely resembles the ordinary Bolivian type (without black on forehead or auriculars), but is lighter gray above, more like *S. c. ornata*.

*Additional material examined.*—Brazil: Congonhas, Minas Geraes, 1; Rio de Janeiro, 10; São Paulo, 8; Paraná, 2; Santa Catharina, 2; Rio Grande do Sul, 12; Matto Grosso, 7; Santa Julia, Rio Iriri, 1.—Paraguay: island near Villa Concepción, 1.—Argentina: Buenos Aires, 4; Tucumán, 3.—Bolivia: Aguairenda, Chaco, 1; San Mateo, Cochabamba, 1; Yungas of La Paz (Chicani, Coroico, Songo), 5; unspecified, 1.

<sup>1</sup> *Sporophila caerulescens ornata* (Lichtenstein): Differs in the male sex from the nominate race by having the whole pileum to the nape, as well as the sides of the head glossy black, and the back decidedly clearer ashy-gray.

Six specimens of the well-known Bahia preparation examined.

<sup>2</sup> *Sporophila melanops* (Pelzeln), a very distinct species, bears some superficial resemblance to *S. n. nigricollis*, but differs at a glance by the following characters. The whole head is black, this color being abruptly defined on the hind neck (instead of passing gradually into the greenish tone of the back) and restricted below to the throat proper (not extending onto the foreneck); back and edges to wings and tail are light brown, between Isabella color and light brownish olive; the under parts from the foreneck down to the tail coverts are dingy buff, between cream-buff and chamois (instead of primrose yellow); the tail is shorter; the bill stouter, shorter, with more rounded culmen, and uniform pale brown (instead of marguerite yellow, with plumbeous base). Wing (adult male), 55; tail, 41; bill, 8.

The type obtained by Natterer on October 19, 1823, at Porto do Rio Araguaya, in southern Goyáz, is still unique. Whether Azara's "Pico grueso variable" among other seed-eaters also includes this species, as is assumed by Bertoni (Faun. Parag., p. 65, 1914), remains to be proved by the actual taking of specimens in Paraguay.

**\**Sporophila nigricollis nigricollis* (Vieillot).<sup>1</sup> YELLOW-BELLIED SEED-EATER.**

*Pyrrhula nigricollis* Vieillot, Tabl. Enc. Méth., Orn., livr. 93, p. 1027, July, 1823—"Brésil" (descr. of immature male; type lost).<sup>2</sup>

*Pyrrhula olivacea* Vieillot, Tabl. Enc. Méth., Orn., livr. 93, p. 1027, July, 1823 -- "Brésil" (descr. of female).

*Fringilla gutturalis* Lichtenstein, Verz. Doubl. Berliner Mus., p. 26 (after September), 1823—São Paulo, Brazil (type in Berlin Museum).

*Loxia ignobilis* Spix, Av. Spec. Nov. Bras., 2, p. 46, pl. 59, fig. 3 ("*Loxia plebeja*"), 1825—"in provincia Parae," Brazil (descr. of female; type lost, formerly in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 680, 1906).

*Loxia plebeja* Spix, Av. Spec. Nov. Bras., 2, p. 46, pl. 60, fig. 3 ("*Loxia ignobilis*"), 1825—no locality indicated (descr. of male; type in Munich Museum; cf. Hellmayr, l.c., p. 680, 1906).

*Fringilla melanocephala* (not *Coccothraustes melanocephala* Vieillot) Wied, Beitr. Naturg. Bras., 3, (1), p. 577, 1830—Rio Belmonte, Bahia, Brazil (descr. of male; type lost, cf. Allen, Bull. Amer. Mus. N. H., 2, p. 223, 1889).

*Spermophila olivaceo-flava* Lafresnaye, Rev. Zool., 6, p. 291, 1843—"Colombie" = Bogotá (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 372, 1930; crit.); idem, l.c., 9, p. 207, 1846—Colombia (descr. of male); Sclater, Proc. Zool. Soc. Lond., 23, p. 160, 1855—Bogotá (ex Lafresnaye).

*Spermophila ignobilis* Jardine, Ann. Mag. Nat. Hist., 20, p. 333, 1847—Tobago.

*Phonipara gutturalis* Bonaparte, Consp. Gen. Av., 1, p. 494, 1850—Brazil; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 298, 1861—Panama Railroad.

*Sporophila gutturalis* Cabanis, Mus. Hein., 1, p. 149, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 244, 1856—Rio de Janeiro; Allen, Bull. Amer. Mus. N. H., 3, p. 369, 1891—Chapada, Matto Grosso; Chapman, l.c., 6, p. 34, 1894—Princetown, Trinidad; Phelps, Auk, 14, p. 364, 1897—Cumanacoa and San Antonio, Bermúdez, Venezuela; Bangs, Proc. Biol. Soc. Wash., 12, p. 179, 1898—Palomina, Santa Marta, Colombia;

<sup>1</sup> It has been claimed by Bangs (Bull. Mus. Comp. Zool., 70, p. 372, 1930) that *Fringilla crispa* Linnaeus (Syst. Nat., 12th ed., 1, p. 324, 1766) is an earlier name for this species. I am, however, quite unable to recognize our bird in "The Black and Yellow Frizled Sparrow" of Edwards (Glean. Nat. Hist., 2, p. 128, pl. 271), which formed the exclusive basis of Linné's account. The bright yellow belly and the heavy, acutely pointed bill, which, in shape, recalls that of a Siskin, render the identification more than problematical, and I hesitate to sacrifice a certainty for the benefit of an uncertainty.

<sup>2</sup> Vieillot's description is unmistakable. Sclater (Ibis, 1871, p. 13) writes of having examined the type and identifies it with *S. c. caerulescens*, adding that the bird differs from other individuals merely by a slight yellowish tinge on the belly. The specimen in question, which is still in the Paris Museum (it was collected by A. de Saint Hilaire in Brazil and received in August, 1822), entirely disagrees with the description and though it bears Vieillot's name on the label, it is not marked as "type," and has evidently no claims to be regarded as such. The real type, and also that of *P. olivacea*, are not in the French National Collection.

- Allen, Bull. Amer. Mus. N. H., 13, p. 166, 1900—Cacagualito and Onaca, Colombia; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 569, 1901—part, excl. of Peru and Ecuador (monog.); Berlepsch and Hartert, Nov. Zool., 9, p. 26, 1902—Ciudad Bolívar, Munduapo, Maipures, and Caicara, Orinoco, and Caura (Suapuré, La Prición), Venezuela; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 159, 1905—Saboga Island, Pearl Islands, Panama; idem, l.c., p. 224, 1906—savanna of Panama; Clark, Proc. Bost. Soc. N. H., 35, p. 286, 1905—Grenada, Carriacou, and St. Vincent (Kingstown); Hellmayr, Nov. Zool., 12, p. 278, 1905—Igarapé-Assú, Pará (crit.); Bangs, Auk, 24, p. 311, 1907—El Pózo de Térraba, Costa Rica; Ihering, Cat. Faun. Braz., 1, p. 377, 1907—Venezuela (Mérida), Bahia, São Paulo (Itapura), and Minas Geraes (Mafiana); Beebe, Zoologica (N.Y.), 1, p. 101, 1909—Guanaco, Orinoco Delta, Venezuela; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—Pernambuco (Pão d'Alho, near Recife), Bahia (Estreito da Ursa, Rio Preto), and Piahy (Ilha São Martin, Rio Parnahyba); Carriker, Ann. Carnegie Mus., 6, p. 891, 1910—El Pózo de Térraba, Costa Rica; Snethlage, Journ. Orn., 61, p. 521, 1913 (ecology); idem, Bol. Mus. Goeldi, 8, p. 430, 1914—Ilha das Onças, Santo Antonio do Prata, Rio Tocantins (Cametá, Arumatheua), Mexiana, and Monte Alegre, Brazil; Piguet, Mém. Soc. Neuchât. Sci. Nat., 5, p. 808, 1914—Medellin, Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 558, 1917—Colombia (Nóvita, Los Cisneros, Caldas, San Antonio, Barbacoas, Buenavista [Nariño], Ricaurte, Cali, La Manuelita, Rio Frio, Miraflores, La Candela, San Agustín, below Andalucia, Subia, La Morelia, Quetame, Buena Vista); Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 133, 1922—Trinidad; Todd and Carriker, Ann. Carnegie Mus., 14, p. 513, 1922—Santa Marta region of Colombia (Bonda, Cacagualito, Don Diego, Don Amo, Cienaga, Mamatoco, Minca, Cincinnati, Fundación, Dibulla, Pueblo Viejo; plumages, crit.); Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, pp. 42, 61, 1926—Ceará and Maranhão (Anil, São Bento); Darlington, Bull. Mus. Comp. Zool., 71, p. 419, 1931—Rio Frio, Magdalena, Colombia; Griscom, l.c., 78, p. 379, 1935—Canal Zone.
- Spermophila gutturalis* Scater, Proc. Zool. Soc. Lond., 23, p. 160, 1855—Bogotá; idem, Cat. Coll. Amer. Bds., p. 105, 1862—part, spec. d, Pará; Scater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 352—Panama Railroad; idem, l.c., 1867, p. 572—Pará; Léotaud, Ois. Trinidad, p. 321, 1866—Trinidad; Pelzeln, Orn. Bras., 3, p. 225, 1870—São Paulo (Borda do Matto, Furnas, Goyáz (Rio Araguaya, Goyáz), Matto Grosso (Cuyabá), and Rio Negro (Marabitanas); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 412—Lagõa Santa and Curvelo, Minas Geraes; Scater, Ibis, 1871, p. 15 (monog., excl. western Ecuador); Wyatt, Ibis, 1871, p. 328—Ocaña, Colombia; Layard, Ibis, 1873, p. 380—Nazaré, Pará, Brazil; Scater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 507—Medellin and Envigado, Colombia (nest and eggs descr.); Forbes, Ibis, 1881, p. 336—Pernambuco (Estancia, Quipapá, Garanhuns); Salvin, Ibis, 1885, p. 215—Roraima, British Guiana; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 354, 1885—Panama to Brazil (excl. of Peru); Wells, Proc. U. S. Nat. Mus., 9, p. 614, 1886—Grenada; Sharpe, Cat. Bds. Brit. Mus., 12, p. 128, 1888—part, spec. a-t, Brazil (Pernambuco, Bahia, Pará), British Guiana

(Roraima), Trinidad, Colombia (Bogotá, Medellín), and Panama (Lion Hill); Cory, Cat. W. Ind. Bds., pp. 113, 151, 1892—Grenada; Dalmás, Mém. Soc. Zool. France, 13, p. 138, 1900—Tobago; Sneath, Journ. Orn., 55, p. 296, 1907—Santo Antonio do Prata and Monte Alegre, Brazil; Penard, Vog. Guyana, 2, p. 396, 1910—Surinam(?).

*Spermophila gutturalis pallida* Berlepsch, Journ. Orn., 32, p. 295, 1884—Bucaramanga, Colombia (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined).

*Sporophila gutturalis roraimae* Chubb, Ann. Mag. Nat. Hist., (9), 7, p. 193, Feb., 1921—Roraima, British Guiana (type in British Museum); idem, Bds. Brit. Guiana, 2, p. 435, 1921—Roraima and Abary River.

*Sporophila gutturalis gutturalis* Hellmayr, Nov. Zool., 13, p. 18, 1906—Caparo and Aripo, Trinidad; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 360, 1908—Aripo, Trinidad; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 16, 88, 1912—Peixe-Boi, Pará (Pará localities); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 190, 1916—Orinoco Valley.

(?) *Spermophila ardesiaca* Dubois,<sup>1</sup> Mém. Soc. Zool. France, 7, p. 399, pl. 10, fig. 1, 1894—"Brésil" (type in Brussels Museum examined).

(?) *Sporophila ardesiaca* Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 528, 1904 (crit.); Ihering, Cat. Faun. Braz., 1, p. 376, 1907 (ex Dubois).

*Sporophila nigricollis nigricollis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 296, 1929—Goyáz (Philadelphia) and Ceará (Varzea Formosa, Quixada); Naumburg, Bull. Amer. Mus. N. H., 60, p. 348, 1930—Matto Grosso; Roberts, Trop. Agric., 11, p. 99, 1934—Trinidad; Pinto, Rev. Mus. Paul., 19, p. 281, 1935—Bahia (Aratuhybe, Serra do Palhão, Corupéba); idem, l.c., 20, p. 145, 1936—Faz. Thomé Pinto and Inhúmas, Goyáz.

*Sporophila luctuosa* (not *Spermophila luctuosa* Lafresnaye) Allen, Bull. Amer. Mus. N. H., 13, p. 166, 1900—Masinga Vieja, Colombia.

*Range.*—Southwestern Costa Rica (Térraba Valley); Panama (Canal Zone); Colombia; Venezuela; islands of Trinidad, Tobago, Grenada, Carriacou, and (?) St. Vincent (one sight record); British Guiana; eastern Brazil, south to São Paulo and Matto Grosso.<sup>2</sup>

<sup>1</sup> The unique type of *S. ardesiaca* differs from the common Brazilian Yellow-bellied Seed-eater by white (instead of pale yellow) breast, abdomen, and under wing coverts, and by having the back, together with the edges to the wing and tail feathers gray with a barely perceptible olivaceous hue here and there. In other respects, such as extent of black on head and throat, black spotting on the sides, pale yellow bill with dusky base to the lower mandible, etc., it is exactly similar. The tail would seem to be somewhat longer, but this is clearly due to its being stretched when the bird was mounted. The specimen has the appearance of having originally been preserved in alcohol, which would account for the loss of all yellow and olive tints of the plumage. No second individual like the type has ever been found, and unless fresh material from some definite region substantiates its claims to recognition, I now feel inclined to regard *S. ardesiaca* as an artificial variety of *S. nigricollis*.

<sup>2</sup> With a very full series from Brazil, Trinidad, Venezuela, and Colombia before me, I cannot distinguish *S. n. pallida* [= *olivaceoflava*], described from the last-named country. The type of *pallida* (from Bucaramanga) and an adult male from Bogotá have indeed paler yellow under parts than the majority of

47: Colombia (Cali, Valle de Cauca, 1; Bogotá, 1); Venezuela (Cocollar, Sucre, 3; Mount Turumiquire, Sucre, 1; Rio Chamá, Mérida, 1; Colón, Tachira, 4); Lesser Antilles (Grenada, 3); Brazil (Bõa Vista, Rio Branco, 1; Varzea Formosa, Ceará, 3; Quixada, Ceará, 4; Philadelphia, Goyáz, 1; Veadeiros, Goyáz, 3; Santo Amaro, Bahia, 5; São Marcello, Bahia, 1; Macaco Secco, near Andarahy, Bahia, 6; Rio das Velhas, near Lagõa Santa, Minas Geraes, 4; Urucúm de Corumbá, Matto Grosso, 2; Therezopolis, Rio de Janeiro, 1); Bolivia (Buena Vista, Santa Cruz, 2).

**\**Sporophila nigricollis inconspicua* Berlepsch and Stolzmann.<sup>1</sup>**  
PERUVIAN YELLOW-BELLIED SEED-EATER.

*Sporophila gutturalis inconspicua* Berlepsch and Stolzmann, *Ornis*, 13, p. 84, Sept., 1906—Santa Ana, Urubamba, Peru (type in coll. of H. von Berlepsch, now in Frankfort Museum, examined); Bangs and Noble, *Auk*, 35, p. 462, 1918—Bellavista, Peru; Chapman, *Bull. U. S. Nat. Mus.*, 117, p. 108, 1921—Santa Ana, Idma, and San Miguel Bridge, Urubamba, Peru.

*Spermophila gutturalis* (not *Fringilla gutturalis* Lichtenstein) Taczanowski, *Proc. Zool. Soc. Lond.*, 1874, p. 519—Paltaypampa, Chilpes, and Amable Maria, Peru; Selater, and Salvin, l.c., 1876, p. 16—Maranura, Urubamba; Taczanowski, l.c., 1879, p. 229—Tambillo, Peru; idem, l.c., 1880, p. 199—Callacate; idem, *Orn. Pér.*, 3, p. 13, 1886—Peru (Paltaypampa, Chilpes, Amable Maria, Tambillo, Chota, Callacate, Maranura); Sharpe, *Cat. Bds. Brit. Mus.*, 12, p. 128, 1888—part, spec. c', d', Tambillo; Salvin, *Nov. Zool.*, 2, p. 6, 1895—Malca, Cajabamba, Peru.

*Spermophila nigricollis inconspicua* Zimmer, *Field Mus. Nat. Hist.*, *Zool. Ser.*, 17, p. 457, 1930—Huánuco and Chinchao, Huánuco (crit.).

*Range.*—Tropical and Subtropical zones of eastern Peru, from the Marañón and lower Huallaga south to Urubamba.

Brazilian birds. However, one from Piahy (Ilha São Martin, Rio Parnahyba) is even paler below, while others from "Bogotá" are fully as deeply colored as any from Brazil. The individual variation in the amount of black on the head has already been discussed by Mr. Todd, so we need not dwell on this subject any further. Two males from British Guiana (*roraimae*) are in no wise different from numerous Brazilian and Venezuelan males with a medium amount of black on the pileum, nor do they differ in size.

*Additional material examined.*—Brazil: Borda do Matto, São Paulo, 2; Cuyabá, Matto Grosso, 1; Goyáz, 5; Bahia, 12; Pão d'Alho, near Recife, Pernambuco, 5; Ilha São Martin, Rio Parnahyba, Piahy, 1; Pará, 7; Marabitanas, Rio Negro, 1.—British Guiana: Rio Caramang, 1; Roraima, 2.—Trinidad: Caparo, 10; Aripo, 1.—Tobago: Man o' War Bay, 2.—Venezuela: inland of Cumaná (San Antonio, etc'), 6; Maipures, Orinoco, 4; Munduapo, Orinoco, 2; Mérida, 10.—Colombia: Bucaramanga, 2; Bogotá, 12; Santa Marta region, 6.

<sup>1</sup> *Sporophila nigricollis inconspicua* Berlepsch and Stolzmann: Similar to *S. n. nigricollis*, but adult male with blackish color of head, throat, and foreneck duller and less extensive, especially on pileum, where it is often restricted to a narrow frontal band, and obviously never reaches backwards beyond the eyes.

As explained by Mr. Zimmer, this form seems to be entitled to recognition. Other specimens examined by us serve to substantiate its characters.

*Additional material examined.*—Peru: Tambillo, 3; Santa Ana, 4.

9: Peru (Yurimaguas, 2; Moyobamba, 1; Huánuco, 4; Chinchao, Huánuco, 1; San Ramón, Chanchamayo, 1).

**\**Sporophila nigricollis vivida* Hellmayr, nom. nov.<sup>1</sup> WESTERN YELLOW-BELLIED SEED-EATER.**

*Spermophila gutturalis olivacea* (not *Pyrrhula olivacea* Vieillot) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 550—Chimbo, Ecuador (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 169, 1927); idem, l.c., 1884, p. 293—Cayandeled; Hartert, Nov. Zool., 5, p. 484, 1898—Paramba; Goodfellow, Ibis, 1901, p. 473—Santo Domingo; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B75, 1911—Gualea, Ayuriquin, and Santo Domingo.

*Spermophila gutturalis* (not *Fringilla gutturalis* Lichtenstein) Sclater, Proc. Zool. Soc. Lond., 28, pp. 85, 293, 1860—Nanegal, Puellarro, and Esmeraldas, Ecuador; idem, Cat. Coll. Amer. Bds., p. 105, 1862—part, spec. a-c, Puellarro, Nanegal, and Esmeraldas; idem, Ibis, 1871, p. 15—part, western Ecuador; Sharpe, Cat. Bds. Brit. Mus., 12, p. 128, 1888—part, spec. u-b', Ecuador ("Quito," Nanegal, Puellarro, Esmeraldas, Cayandeled); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 25, 1899—La Concepción, Chota Valley.

*Sporophila gutturalis olivacea* Chapman, Bull. Amer. Mus. N. H., 55, p. 611, 1926—Esmeraldas, Mindo, Rio de Oro, Bucay, junction Chanchan and Chinguancay, Huigra, Cumbayá, and Alamor, Ecuador.

*Range*.—Tropical zone (locally in the Subtropical zone) of western Ecuador.

1: Ecuador (Paramba, Imbabura, 1).

**\**Sporophila lineola* (Linnaeus). LINED SEED-EATER.**

*Loria lineola* Linnaeus, Syst. Nat., 10th ed., 1, p. 174, 1758—"Asia," errore = Surinam, as designated by Berlepsch and Hartert, Nov. Zool., 9, p. 26, 1902 (descr. of male).

*Loria crista* (not *Fringilla crista* Linnaeus, 1776) P. L. S. Müller, Natursyst., Suppl., p. 154, 1776—based on "Bouvreuil à plumes frisées, du Brésil" Daubenton, Pl. Enl., pl. 319, fig. 1.

*Loria fusca* (not of Linnaeus, 1766) Hermann, Tabl. Aff. Anim., p. 221 (note), 1783—based on "Le Bouveron" Buffon (Hist. Nat. Gén., Ois., 4, p. 388) = Daubenton's "Bouvreuil à plumes frisées, du Brésil."

*Fringilla lineola* Wied, Beitr. Naturg. Bras., 3, (1), p. 574, 1830—eastern Brazil.

<sup>1</sup> *Sporophila nigricollis vivida* Hellmayr: Similar to *S. n. nigricollis* in the adult male having the head, throat, and foreneck extensively black, but breast and abdomen much richer yellow.

The subspecific name *olivacea* being untenable in the genus on account of *Pyrrhula olivacea* Vieillot, bestowed upon a female of the nominate race from Brazil, the west Ecuadorian representative requires to be rebaptized.

*Additional material examined*.—Western Ecuador: Paramba, 17; Gualea, 3; Cayandeled, 2; Chimbo, 2.



*Pyrrhula lineola* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 86, 1837—Chiquitos and Guarayos, Bolivia.

*Spermophila lineola* Bonaparte, Consp. Gen. Av., 1, (2), p. 497, 1850—Brazil; idem, Bull. Soc. Linn. Normandie, 2, p. 30, 1857—Cayenne; Sclater, Cat. Coll. Amer. Bds., p. 104, 1862—Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 252—Maruria, Lake of Valencia, Venezuela; Pelzeln, Orn. Bras., 3, p. 224, 1870—part, [Villa Bella de] Matto Grosso, Rio Xié, and "Barra" [= Manáos], Brazil (spec. examined); Sclater, Ibis, 1871, p. 13—part, Cayenne, Rio Negro, Bolivia, Matto Grosso, Bahia, and Paraguay (Rio Vermejo); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 604—Chiquitos and Guarayos, Bolivia; Salvin, Ibis, 1885, p. 214—Merumé Mts., Camacusa, and Roraima, British Guiana; Sharpe, Cat. Bds. Brit. Mus., 12, p. 131, 1888—part, spec. a p, Bahia, Pernambuco, Cayenne, British Guiana (Merumé Mts., Camacusa, Caramang River), and Venezuela (Lake of Valencia); Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 5, 1895—Santa Rosa, Salta (spec. examined); idem, l.c., 12, No. 292, p. 8, 1897—San Francisco and Aguiar, Bolivia (spec. examined); Ihering, Rev. Mus. Paul., 3, p. 162, 1898—Piracicaba, São Paulo; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 175, 1909—Ocampo, Santa Fé, Argentina; Penard, Vog. Guyana, 2, p. 392, 1910—Surinam.

*Sporophila lineola* Cabanis, Mus. Hein., 1, p. 150, 1851—Cayenne; Burmeister, Syst. Uebers. Th. Bras., 3, p. 248, 1856—"Pará"; Allen, Bull. Amer. Mus. N. H., 2, p. 93, 1889—Falls of the Rio Madeira, Bolivia; idem, l.c., 3, p. 369, 1891—Cachoeira, Matto Grosso; Berlepsch and Hartert, Nov. Zool., 9, p. 26, 1902—Caicara, Orinoco, Venezuela (spec. examined); Ihering, Cat. Faun. Braz., 1, p. 377, 1907—São Paulo (Piracicaba, Avanhadava) and Bahia; Hellmayr, Nov. Zool., 14, p. 8, 1907—Urucurituba, Rio Tapajóz; Snethlage, Journ. Orn., 56, p. 500, 1908—Goyana, Rio Tapajóz; Berlepsch, Nov. Zool., 15, p. 121, 1908—Cayenne and Roche-Marie, French Guiana; Hellmayr, l.c., 17, p. 280, 1910—Calama, Rio Madeira; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 82, 1910—Joazeiro, Bahia, and Parnaguá, Piahy, Brazil; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 385, 1910—Argentina (Tucumán; Ocampo, Santa Fé); Bertoni, Faun. Parag., p. 65, 1914—Rio Bermejo, Paraguay (?); Snethlage, Bol. Mus. Goeldi, 8, p. 431, 1914—Pará, Magoary, Peixe-Boi, Rio Xingú (Victoria, Forte Ambé), Rio Iriri (Santa Julia), Rio Tapajóz (Goyana), Rio Jamauchim (Tucunaré), and Obidos; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 189, 1916—Caicara, Orinoco; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 90, 1918—vicinity of Paramaribo, Surinam; Chubb, Bds. Brit. Guiana, 2, p. 433, 1921—Supe-naam, Abary River, Merumé Mts., Camacusa, Caramang River, Georgetown, and Bartica [Grove]; Dinelli, El Hornero, 3, p. 256, 1924—Tucumán (nest and eggs descr.); Friedmann, Bull. Mus. Comp. Zool., 68, p. 231, 1927—Concepción, Tucumán.

*Sporophila lineola lineola* Naumburg, Bull. Amer. Mus. N. H., 60, p. 348, 1930—Urucúm and Fazenda do São João, Matto Grosso; Pinto, Rev. Mus. Paul., 20, p. 146, 1936—Inhúmas, Rio Meia Ponte, Goyáz.

*Range*.—Venezuela (one record each from Lake Valencia, Carabobo, and Caicara on the Orinoco); British, Dutch, and French Guiana; Brazil, from the Rio Negro and the Pará region south to Bahia, northern São Paulo (Piracicaba, Avanhandava), and Matto Grosso; Peru (one record from the Rio Samiría); eastern Bolivia; northern Argentina (Santa Rosa, Salta; Tucumán region; Santiago del Estero; Rio Vermejo, Chaco; Ocampo, Santa Fé).<sup>1</sup>

5: Bolivia (Buena Vista, Santa Cruz, 1); Argentina (Isca-yacú, Santiago del Estero, 2; Tucumán, 1; Concepción, Tucumán, 1).

***Sporophila bouvronides* (Lesson).<sup>2</sup> LESSON'S SEED-EATER.**

*Pyrrhula bouvronides* Lesson, *Traité d'Orn.*, livr. 6, p. 450, Feb., 1831—no locality indicated, we suggest Trinidad (descr. of male; type lost; cf. Pucheran, *Rev. Mag. Zool.*, 2, (6), p. 68, 1854).

*Spermophila bouvronides* Sclater, *Cat. Coll. Amer. Bds.*, p. 104, 1862—Trinidad.

*Spermophila bouvronoides* Léotaud, *Ois. Trinidad*, p. 318, 1866—Trinidad.

*Spermophila ocellata* Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1866, p. 181—Nauta, Peru (descr. of male and female; cotypes in coll. of P. L. Sclater, now in British Museum, examined); idem, *l.c.*, 1869, pp. 252, 253—plain of Valencia, Venezuela (spec. examined); Sclater, *Ibis*, 1871, p. 14, pl. 2, fig. 3 (male)—Nauta and Lake of Valencia (monog.); Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1873, p. 264—Nauta; (?)Taczanowski and Ber-

<sup>1</sup> Specimens from Matto Grosso, Bolivia, and Argentina average very slightly larger, but aside from this there is no difference whatever between birds from various parts of the range. In adult males the white stripe in the middle of the forehead varies but little in extent, and always forms a very conspicuous, well-defined marking. The under parts are as a rule unmarked white, though in a few, notably one from Cayenne, the lateral chest feathers show traces of blackish cross-bands, thus indicating an approach to the "*ocellata*" variety of Lesson's Seed-eater. The most westerly locality represented in the series examined is an adult male secured by J. Hauxwell on October 13, 1881, on the Rio Samiría in northeastern Peru. The specimen is quite typical in every respect as is also one from the Rio Xié, upper Rio Negro.

*Additional material examined*.—Venezuela: Caicara, Orinoco, 2.—British Guiana: Camacusa, 6; Rio Caramang, 5; Annai, 2.—French Guiana: Cayenne, 17; Roche-Marie, 5.—Brazil: Rio Xié, 1; Manãos, 1; Urucurituba, Rio Tapajóz, 6; Calama, Rio Madeira, 2; Bahia, 8; Joazeiro, Bahia, 1; Villa Bella de Matto Grosso, 2.—Peru: Rio Samiría, 1.—Bolivia: Santa Cruz, 2; San Francisco, 1; Aguiarrenda, 1.—Argentina: Santa Rosa, Salta, 1.

<sup>2</sup> *Sporophila bouvronides* (Lesson): Similar to *S. lineola*, but adult male with crown wholly black or with but a few tiny white dots in the middle of the forehead; female indistinguishable.

The names *P. bouvronides*, *S. ocellata*, *S. trinitatis*, and *S. amazonica* have been based on individual variations. This is clearly shown by the comparison of an excellent series of fourteen adult males collected by S. M. Klages at Caparo, Trinidad, with another from Amazonia, including the types of *S. ocellata* and *S. amazonica*. In several examples, the foreneck and sides of the chest are plain white like the rest of the under parts (as in *S. lineola*); in others there are a few blackish cross-lines to be seen on some of the lateral breast-feathers; and three or four others have the entire chest and sides more or less regularly barred or edged with black as in specimens from Nauta (*ocellata*). The type of *S. amazonica* and a male from Lamalonga represent the intermediate stage, while one from Mara-

lepsch, l.c., 1885, p. 84—Machay, Ecuador (female); Taczanowski, Orn. Pér., 3, p. 15, 1886—Nauta, Peru; Sharpe, Cat. Bds. Brit. Mus., 12, p. 130, 1888—(?) Colombia (Santa Marta), Venezuela (Valencia, Mérida), British Guiana (Caramang River), and Peru (Rio Ucayali, Iquitos, Nauta); Penard, Vog. Guyana, 2, p. 391, 1910—Surinam.

*Spermophila lessoni* Finsch, Proc. Zool. Soc. Lond., 1870, p. 583—Trinidad (new name for *Pyrhula bouvronides* Lesson).

*Spermophila trinitatis* Sharpe, Cat. Bds. Brit. Mus., 12, pp. 132, 133, 1888—Trinidad (descr. of male; type in British Museum examined).

*Spermophila amazonica* Sharpe, Cat. Bds. Brit. Mus., 12, pp. 122, 123, 1888—north side of the Amazon, Brazil (descr. of male; type in British Museum examined).

*Sporophila lineola restricta* Todd, Proc. Biol. Soc. Wash., 30, p. 128, July 27, 1927—Gamarrá, Magdalena, Colombia (descr. of male; type in the Carnegie Museum, Pittsburgh); Darlington, Bull. Mus. Comp. Zool., 71, p. 419, 1931—Rio Frio, Magdalena, Colombia.

*Spermophila lineola* (not *Loria lineola* Linnaeus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 595—Mexiana, Rio Tocantins, and north side of the Amazon, Brazil; Pelzeln, Orn. Bras., 3, p. 224, 1870—part, Marabitanas and Lamalonga, Rio Negro (spec. examined); Sclater, Ibis, 1871, p. 13—part, Rio Negro, Venezuela, and Trinidad.

*Sporophila ocellata* Berlepsch, Journ. Orn., 37, p. 98, 1889—Tonantins, Rio Solimões, Brazil (spec. examined).

*Sporophila lineola trinitatis* Chapman, Bull. Amer. Mus. N. H., 6, p. 34, 1894—Trinidad (ex Léotaud); Berlepsch and Hartert, Nov. Zool., 9, p. 26, 1902—Ciudad Bolívar, Orinoco, Venezuela (spec. examined).

*Sporophila lineola* Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 133, 1922—Trinidad (Palo Seco and Maracas Valley).

*Sporophila bouvronides* Hellmayr, Nov. Zool., 13, p. 58, 1906 (crit.; regular occurrence in Trinidad questioned); Ihering, Cat. Faun. Braz., 1, p. 377, 1907 (range); Snethlage, Journ. Orn., 56, p. 11, 1908—Bom Lugar, Rio

bitanas is just as heavily marked beneath as some of the Nauta birds, which show, however, considerable variation. A Bogotá specimen, which is without doubt what Todd described as *S. l. restricta*, cannot be distinguished from the white-breasted Trinidad males.

While we have kept Lesson's Seed-eater as specifically distinct, we are not certain that it is anything more than an individual mutant of *S. lineola*. Females are absolutely the same as far as I can see, and the geographical distribution of the two "species" is almost incomprehensible. Both occur in Dutch and British Guiana, in the plains around Lake of Valencia, in the Orinoco Valley, and in various sections of Amazonia (Rio Negro and northeastern Peru). On the other hand, males with pronounced white crown-stripe are not found in Trinidad, while such without that marking never occur in French Guiana, Argentina, Bolivia, Bahia, or Matto Grosso. The character does not strike me as of specific value, and further investigation of the problem is imperative.

*Material examined*.—Trinidad: Caparo, 15; unspecified, 3.—Venezuela: near Cumaná, 1; north shore of Lake Valencia, 1; Ciudad Bolívar, Orinoco, 3.—Colombia: Bogotá, 1.—Brazil: Lamalonga, Rio Negro, 1; Marabitanas, Rio Negro, 2; north side of Amazon, 1; Sepatiny, Rio Purús, 1; Tonantins, Rio Solimões, 1.—Peru: Nauta, 5; Rio Canchahuaya, Ucayali, 1.—British Guiana: Demerara, 3; Rio Rupunani, 1.—Dutch Guiana: near Paramaribo, 4; Crippie, 1; Surinam, 4.

Purús, Brazil; idem, Bol. Mus. Goeldi, 8, p. 430, 1914—Rio Purús; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 189, 1916—Las Barrancas, Delta region, up to Caicara, Orinoco (crit.); Chubb, Bds. Brit. Guiana, 2, p. 432, 1921—Takutú Mountains, Supenaam, and Caramang River; (?)Chapman, Bull. Amer. Mus. N. H., 55, p. 611, 1926—Machay, Ecuador; Roberts, Trop. Agric., 11, p. 99, 1934—Trinidad.

*Range*.—Island of Trinidad; northern Venezuela, from Cumaná and Lake Valencia south to the Orinoco Valley; northern Colombia (Magdalena Valley); British and Dutch Guiana; Amazonia (Lamalonga and Marabitanas, upper Rio Negro; Tonantins, Rio Solimões; Sepatiny and Bom Lugar, Rio Purús); northeastern Peru (Nauta; Iquitos; Ucayali); (?)eastern Ecuador (Machay).

**\**Sporophila telasco* (Lesson).<sup>1</sup> CHESTNUT-THROATED SEED-EATER.**

*Pyrrhula telasco* Lesson, Voyage Coquille, Zool., 1, (2), livr. 8, pl. 15, fig. 3 (=male), Nov. 29, 1828; idem, l.c., livr. 15, p. 663, April 3, 1830—environs of Lima, Peru (descr. of male; actual location of type unknown).<sup>2</sup>

*Pyrrhula alaudina* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 88, 1837—Tacna, Chile (descr. of female; type in Paris Museum).<sup>3</sup>

*Camarhynchus leucopterus* Peale, U. S. Expl. Exp., 8, p. 118, 1848—near Callao, Peru (type in U. S. National Museum).

*Spermophila telasco* Lafresnaye, Rev. Zool., 10, p. 75, 1847—Lima, Peru; Bonaparte, Consp. Gen. Av., 1, (2), p. 496, 1850—Peru; Sclater, Proc. Zool. Soc. Lond., 1867, p. 341—Lima, Peru; Sclater and Salvin, l.c., 1868 p. 173—Tambo Valley, Arequipa; Sclater, l.c., 1869, p. 147—Lima; idem, Ibis, 1871, p. 7—Lima and Tacna (monog.); idem, Proc. Zool. Soc. Lond., 1871, p. 497—Lima (habits, nest, and eggs); Taczanowski, l.c., 1874, p. 519—Lima; idem, l.c., 1877, p. 320—Tumbez, Peru; Salvin, l.c., 1883, p. 421—Callao, Peru; Berlepsch and Taczanowski, l.c., 1883, p. 550—Guayaquil, Peru; Taczanowski, Orn. Pér., 3, p. 14, 1886—Lima and Tumbez; Sharpe, Cat. Bds. Brit. Mus., 12, p. 102, 1888—Ecuador (Guayaquil, Balzar) and Peru (Lima, Callao, Tambo Valley); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 24, 1899—Puntilla de Santa Elena and Balzar, Ecuador.

*Sporophila telasco* Tschudi, Arch. Naturg., 10, (1), p. 291, 1844—Peru; idem, Unters. Faun. Peru., Orn., p. 221, 1846—"western Sierra valleys" of Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 376—Lima; Chapman, Bull. Amer. Mus. N. H., 55, p. 609, 1926—Ecuador (Esmeraldas, Chone, Bucay, Puna Island); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 52, 1932—Tacna and Asapa (near Arica), Chile.

*Sporophila alaudina* Tschudi, Arch. Naturg., 10, (1), p. 291, 1844—Peru; idem, Unters. Faun. Peru., Orn., p. 222, 1846—Tacna (ex Lafresnaye and d'Orbigny).

<sup>1</sup> *Sporophila telasco* (Lesson), though well characterized by its white rump and white under parts excepting the chestnut throat, seems to be allied to *S. minuta*.

<sup>2</sup> Not in the Paris Museum.

<sup>3</sup> The type has lately been re-examined, at my request, by Mr. Berlioz, who writes that it is without any doubt a female of the present species.

*Spermophila alaudina* Bonaparte, Consp. Gen. Av., 1, (2), p. 496, 1850—Peru (ex Lafresnaye and d'Orbigny).

*Range*.—Pacific coast from northwestern Ecuador (Esmeraldas) south to extreme northern Chile (Tacna Province).<sup>1</sup>

4: Peru (Menocucho, 3; Trujillo, 1).

***Sporophila insulata* Chapman.<sup>2</sup> TUMACO SEED-EATER.**

*Sporophila insulata* Chapman, Amer. Mus. Novit., 18, p. 12, Sept. 22, 1921 — Tumaco Island, off southwestern Colombia (type in the American Museum of Natural History, New York).

*Range*.—Tumaco Island, off southwestern Colombia.

**\**Sporophila minuta parva* (Lawrence).<sup>3</sup> RICHARDSON'S SEED-EATER.**

*Spermophila parva* Lawrence, Ann. N. Y. Acad. Sci., 2, p. 382, May 28, 1883 — Tehuantepec, Oaxaca, Mexico (descr. of female; type in U. S. National Museum).

*Spermophila richardsoni* Salvin and Godman, Ibis, (6), 3, p. 611, Oct., 1891 — Tonalá, Chiapas, Mexico, and Retalhuleu, Guatemala (type, from San Benito, Chiapas, in Salvin-Godman Collection, now in British Museum, examined).

*Sporophila minuta parva* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 568, 1901—southern Mexico (Chiapas and Oaxaca), Guatemala (Retalhuleu), and Nicaragua (Managua) (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 401, 1928—Tapanatepec, Oaxaca; Griscom, Bull. Amer. Mus. N. H., 64, p. 351, 1932—Hacienda California and Carolina, Guatemala.

<sup>1</sup> Birds from Ecuador (Guayaquil) agree with others from Peru and Chile.

*Additional material examined*.—Ecuador: Guayaquil, 4.—Peru: Eten, Lambayeque, 6; Pacasmayo, 1; Tembladera, 3; Trujillo, 1; Callao, 2; Lima, 3.—Chile, Tacna: Tacna, 1; Asapa, near Arica, 1.

<sup>2</sup> *Sporophila insulata* Chapman: "Adult (?) male (in worn plumage). Upper parts, including tail coverts, mouse gray, only the terminal feathers of the rump rufous-chestnut; tail black, white at the base, white on the outer tail feathers much reduced or absent; wings black, secondaries white for basal half, all but two outer primaries basally white, increasing in extent inwardly; under parts rufous-chestnut, the abdomen mixed with whitish (indicating immaturity?); lower tail coverts chestnut; bill and feet blackish. Immature male similar, but abdomen and under tail coverts white. Female resembling that of *S. m. minuta*, but somewhat grayer above and paler below with more white at the bases of the wing-quills. Wing, 50, (female) 48; tail, 36; bill, 9.3." (Chapman, l.c.)

This species, which we have not seen, is described as nearly related to *S. minuta*, but differing by largely gray rump, with only the most posterior uropygial feathers chestnut, and basally white tail. Birds from northwestern Ecuador (Paramba and La Concepción, Río Mira) do not show any of the above characters, and evidently are not separable from *S. m. minuta*.

<sup>3</sup> *Sporophila minuta parva* (Lawrence) differs from the more southern races by the adult males being above pure (bluish) ashy gray (without any brownish or olive tinge), while the females are slightly less buffy.

*Additional material examined*.—Mexico, Nayarit: Tuxpan, 2; Ixtlan, 1.—Guatemala: Retalhuleu, 1.

*Range*.—Arid Tropical zone of the Pacific slope of Mexico, in states of Nayarit (Tuxpan, Ixtlan), Oaxaca (Tehuantepec, Tapana-tepec), and Chiapas (Tonalá), and in Guatemala (Hacienda California and Carolina, San Marcos; Tiquisate; Retalhuleu), and Nicaragua (Managua).

5: Guatemala (Escuintla, Tiquisate, 2); Nicaragua (San Gerónimo, Chinandega, 3).

**\**Sporophila minuta centralis* Bangs and Penard.<sup>1</sup> PANAMA SEED-EATER.**

*Sporophila minuta centralis* Bangs and Penard, Bull. Mus. Comp. Zool., **62**, p. 90, April, 1918—near Panama City, Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); Griscom, l.c., **78**, p. 379, 1935—Panama east to the Rio Chepo.

*Spermophila minuta* (not *Loxia minuta* Linnaeus) Lawrence, Ann. Lyc. Nat. Hist. N. Y., **7**, p. 333, 1861—Panama Railroad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 352—Lion Hill, Panama; Sclater, Ibis, 1871, p. 3—part, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 351, 1885—part, Panama; Sharpe, Cat. Bds. Brit. Mus., **12**, p. 109, 1888—part, spec. a-d, Lion Hill, Panama.

*Sporophila minuta* Bangs, Proc. New Engl. Zool. Cl., **2**, p. 33, 1900—Loma del León, Panama.

*Sporophila minuta minuta* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 567, 1901—part, Panama (Lion Hill, Colón); Thayer and Bangs, Bull. Mus. Comp. Zool., **46**, p. 224, 1906—savanna of Panama; Carriker, Ann. Carnegie Mus., **4**, p. 302, 1908—Buenos Aires de Térraba, Costa Rica; Bangs, Proc. Biol. Soc. Wash., **22**, p. 38, 1909—Buenos Aires, Costa Rica; Carriker, Ann. Carnegie Mus., **6**, p. 891, 1910—Buenos Aires de Térraba, Costa Rica; Hallinan, Auk, **41**, p. 321, 1924—Balboa, Panama.

*Range*.—Arid Tropical zone of southwestern Costa Rica (Térraba Valley) and western Panama, east to the Rio Chepo.

1: Costa Rica (Buenos Aires, 1).

**\**Sporophila minuta minuta* (Linnaeus). MINUTE SEED-EATER.**

*Loxia minuta* Linnaeus, Syst. Nat., 10th ed., **1**, p. 176, 1758—Surinam (descr. of adult male).

*Loxia fusciventer* Boddaert, Tabl. Pl. Enl., p. 20, Dec., 1783—based upon "Bouvreuil à ventre roux, de Cayenne" Daubenton, Pl. Enl., pl. 319, fig. 2 (male).

<sup>1</sup> *Sporophila minuta centralis* Bangs and Penard: Similar to *S. m. minuta*, but very slightly smaller, the upper parts of the males more brownish (less grayish brown), and the lower surface as well as the rump on average paler; female hardly distinguishable.

This is not a very strongly marked race, but four adult males from Panama, when compared to a series of South American skins, are decidedly more brownish above.

*Spermophila fusciventris* Jardine, Ann. Mag. Nat. Hist., 20, p. 333, 1847—Tobago.

*Sporophila minuta* Cabanis, Mus. Hein., 1, p. 150, 1851—Cayenne; Riker and Chapman, Auk, 7, p. 268, 1890—Santarém, Brazil; Chapman, Bull. Amer. Mus. N. H., 6, p. 34, 1894—Princetown, Trinidad; Phelps, Auk, 14, p. 364, 1897—Cumanacoa and San Antonio [Bermúdez], Venezuela; Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—Honda, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 166, 1900—Bonda, Onaca, and Cienaga, northern Colombia; Berlepsch and Hartert, Nov. Zool., 9, p. 26, 1902—Altagracia and Caicara, Orinoco, and Suapuré, Caura, Venezuela; Ihering, Cat. Faun. Braz., 1, p. 374, 1907—Mérida, Venezuela (range); Snethlage, Journ. Orn., 56, p. 524, 1908—Alcobaça, Rio Tocantins; Berlepsch, Nov. Zool., 15, pp. 102, 317, 1908—Cayenne, Roche-Marie, lower Mahury, and Sinnamary, French Guiana; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 208, 1913—Pedernales, Orinoco Delta, Venezuela; Snethlage, Journ. Orn., 61, p. 521, 1913—Marajó and Monte Alegre, Brazil; idem, Bol. Mus. Goeldi, 8, p. 429, 1914—Quati-purú, Rio Tocantins (Alcobaça), Marajó (São Natal, Tuyuyú, Pacoval), Mexiana, and Maracá, Brazil; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 134, 1922—Trinidad (eggs descr.).

*Spermophila minuta* Bonaparte, Consp. Gen. Av., 1, p. 495, 1850—Cayenne and Brazil; Selater, Proc. Zool. Soc. Lond., 23, p. 160, 1855—Bogotá and Santa Marta, Colombia; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 30, 1857—Cayenne; Selater, Cat. Coll. Amer. Bds., p. 104, 1862—Tobago and Bogotá; Taylor, Ibis, 1864, p. 83—Trinidad; Léotaud, Ois. Trinidad, p. 322, 1866—Trinidad; Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—El Pilar [Bermúdez], Venezuela; Finsch, l.c., 1870, p. 582—Trinidad; Selater, Ibis, 1871, p. 3—part, Cayenne, Venezuela, Trinidad, Tobago, and Bogotá; Wyatt, Ibis, 1871, p. 328—Ocaña and Lake Paturia, Colombia; Layard, Ibis, 1873, p. 380—Nazaré, Pará, Brazil; Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 506—Retiro and Medellín, Colombia (nest and eggs descr.); Salvin, Cat. Strickl. Coll., p. 220, 1882—Bogotá and Trinidad; Berlepsch, Journ. Orn., 32, p. 294, 1884—Bucaramanga, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 351, 1885—part, South America; Salvin, Ibis, 1885, p. 214—Roraima, British Guiana; Sharpe, Cat. Bds. Brit. Mus., 12, pp. 109, 820, 1888—part, spec. f-t, Colombia (Medellin, Bogotá), British Guiana (Georgetown, Roraima), Cayenne, Tobago, and Brazil (Pará); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 23, 1899—La Concepción, Rio Mira, Ecuador (spec. examined); Dalmas, Mém. Soc. Zool. France, 13, p. 138, 1900—Tobago; Ménégau, Bull. Mus. Hist. Nat. Paris, 13, p. 498, 1907—French Guiana; Snethlage, Journ. Orn., 55, p. 296, 1907—Maracá, Marajó, and Mexiana; Hagmann, Zool. Jahrb. (Syst.), 26, p. 29, 1907—Mexiana; Penard, Vog. Guyana, 2, p. 390, 1910—Surinam (habits).

*Sporophila minuta minuta* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 567, 1901—part, northern South America, including Trinidad and Tobago; Hellmayr, Nov. Zool., 13, p. 18, 1906—Caparo and Seelet, Trinidad (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 360, 1908—Carenage, Trinidad; Beebe, Zoologica (N.Y.), 1, p. 101, 1909—Guanaco, Orinoco Delta; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2,

pp. 88, 119, 1912—Nazaré (Pará) and Mexiana; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 164, 1912—San Esteban, Carabobo, Venezuela; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 189, 1916—Orinoco Valley, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 557, 1917—Caldas, Cali, Rio Frio, La Manuelita, Miraflores, Barro Blanco, San Agustín, Chicoral, Honda, Puerto Barrio, Malena, Calamar, and Quetame, Colombia; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 89, 1918—vicinity of Paramaribo and Lelydorp, Surinam; Todd and Carriker, Ann. Carnegie Mus., 14, p. 515, 1922—Bonda, Don Diego, Gaira, Rio Hacha, Mamatoco, Fundación, and Tucurínca, Santa Marta region, Colombia; Chapman, Bull. Amer. Mus. N. H., 55, p. 609, 1926—western Ecuador; Darlington, Bull. Mus. Comp. Zool., 71, p. 419, 1931—Rio Frio, Magdalena, Colombia; Roberts, Trop. Agric., 11, p. 99, 1934—Trinidad.

*Spermophila (Gyrinorhynchus) minuta* Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 183, 1904—lower Mahury and Sinnamary, French Guiana.

*Microphila minuta* Chubb, Bds. Brit. Guiana, 2, p. 438, 1921—Roraima, upper Takutú Mts., Supenaam, Abary River, Georgetown, and Hoorie River.

*Range*.—Northeastern Brazil, from the Guianan border south to Pará, west to Santarém and Monte Alegre; the Guianas; islands of Trinidad and Tobago; Venezuela (south to the Orinoco basin); Colombia; northwestern Ecuador.<sup>1</sup>

29: Colombia (Fundación, Magdalena, 1; Tucurínca, Magdalena, 1; 10 miles north of Cucuta, Santander del Norte, 2; Chicoral, Tolima, 1; Barro Blanco, Antioquia, 1; Bogotá, 2); Venezuela (Caracas, 6; Maracay, Aragua, 2; Colón, Tachira, 4; Rio Catatumbo, Zulía, 2; Encontrados, Zulía, 5); British Guiana (Georgetown, 2).

***Sporophila minuta hypoxantha* Cabanis.<sup>2</sup> TAWNY-BELLIED SEED-EATER.**

*Sporophila hypoxantha* Cabanis, Mus. Hein., 1, p. 150 (note), Oct., 1851—"Montevideo," errore (descr. of male; type in Berlin Museum); Burmeister, Syst. Uebers. Th. Bras., 3, p. 250, 1856—part, descr. of alleged

<sup>1</sup> I am unable to subdivide satisfactorily this widely spread form, although males from Surinam and French Guiana frequently show unusually dark, nearly hazel under parts. These dark individuals are, however, matched by others from Colombia, notably one from Antioquia. Two adult males from western Ecuador agree well with the average from Cayenne, and I cannot separate either these or the inhabitants of Colombia, though some of the latter, by slightly smaller size and more olivaceous upper parts, approach *S. m. centralis*.

*Additional material examined*.—Brazil: Pará, 1; Marajó, 2.—French Guiana: Cayenne, 14; Roche-Marie, 5.—Surinam, 2.—British Guiana: Roraima, 2.—Trinidad: Caparo, 15; Icacos, 2; Seelet, 1.—Tobago, 2.—Venezuela: San Antonio, Bermúdez, 4; Altagracia, Orinoco, 6; Valley of San Esteban, Carabobo, 4; Mérida, 5.—Colombia: Aracataca, 2; Bogotá, 17; Bucaramanga, 1.—Ecuador: La Concepción, Rio Mira, 2; Paramba, Prov. Imbabura, 2.

<sup>2</sup> *Sporophila minuta hypoxantha* Cabanis merely differs from the nominate race by slightly larger size and by the tawny color of the under parts extending, in the male sex, up to the cheeks and auriculars. The rufous parts of the plumage



"adult female" (=adult male!), from "Montevideo," errore; Berlepsch, Journ. Orn., 35, p. 7, 1887—Lambaré, Paraguay (crit.); Ihering, Cat. Faun. Braz., 1, p. 374, 1907—Itararé, São Paulo; Lillo, Apunt. Hist. Nat., 1, p. 44, 1909—Mocoví, Santa Fé; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 383, 1910—Mocoví, Chaco; Chubb, Ibis, 1910, p. 634—Sapucay, Paraguay; Bertoni, Faun. Parag., p. 64, 1914—Puerto Bertoni, Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 355, 1914—Misiones and Chaco Austral, Argentina; Tremoleras, El Hornero, 2, p. 23, 1920—Uruguay; Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 4, p. 27, 1927—Zelaya, Buenos Aires (male, February, 1925); Naumburg, Bull. Amer. Mus. N. H., 60, p. 346, 1930—Paraguay (Puerto Pinasco, Rio Negro) and Matto Grosso (Urucúm, Bocaina de Descalvados); Anonymous, El Hornero, 5, p. 427, 1934—Villagay, Entre Ríos.

*Pyrrhula minuta* (not *Loxia minuta* Linnaeus) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 87, 1837—Chiquitos, Bolivia (in part; spec. in Paris Museum examined).

*Spermophila minuta* Hartlaub, Syst. Ind. Azara, p. 8, 1847—Paraguay (ex "Pico grueso pardo y canela" Azara, No. 122).

*Spermophila hypoxantha* Pelzel, Orn. Bras., 3, p. 225, 1870—Curytiba, Paraná, and Poruti, Matto Grosso (spec. examined); Sclater, Ibis, 1871, p. 3—Paraguay, Bolivia (Chiquitos), Paraná (Curytiba), and "Montevideo" (monog.); Gibson, Ibis, 1885, p. 277—Paysandú, Uruguay; Sharpe, Cat. Bds. Brit. Mus., 12, p. 111, 1888—Curytiba, Paraná;<sup>1</sup> Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 5, 1900—Urucúm and Carandasinho, Matto Grosso (spec. examined); Hartert and Venturi, Nov. Zool., 16, p. 175, 1909—Mocoví and Ocampo, Santa Fé.

*Spermophila* sp. Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 5, 1895—Corumbá, Matto Grosso (spec. examined).

*Sporophila minuta hypoxantha* Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 244, 1930—Formosa (San José, Tapikiolé) and Bolivia (San Fermín and Ipias, Santa Cruz) (crit.).

*Range*.—Southern Brazil, in states of São Paulo (Itararé), Paraná (Curytiba), and Matto Grosso (Poruti, Urucúm, Descalvados, Corumbá, Carandasinho); eastern Bolivia (Chiquitos; San Fermín and Ipias, Santa Cruz); Paraguay; Uruguay (Paysandú); northern Argentina (chiefly in the Chaco provinces, but also recorded from Santa Elena, Entre Ríos, and Zelaya, Buenos Aires).

are, as a rule, somewhat lighter in tone, though this is not an absolutely constant character. Wing, 53–57, (female) 51–53; tail, 40–44.

The original locality, "Montevideo," is no doubt inaccurate, and should be corrected to southern Brazil. Birds from Argentina and Bolivia agree with a Brazilian series.

*Material examined*.—Bolivia: Chiquitos, 1; San Fermín, Santa Cruz, 2.—Paraguay: Lambaré, 2.—Argentina: San José, Formosa, 5; Mocoví, Chaco, 1; Ocampo, Santa Fé, 1.—Brazil: Curytiba, Paraná, 8; Poruti, Matto Grosso, 1; Corumbá, Matto Grosso, 2; Urucúm, Matto Grosso, 4; Carandasinho, Matto Grosso, 1.

<sup>1</sup> The female from Bahia certainly belongs to some other species.

**\**Sporophila ruficollis* Cabanis.<sup>1</sup> RUFOUS-THROATED SEED-EATER.**

*Sporophila ruficollis* Cabanis, Mus. Hein., 1, p. 150, Oct., 1851—"Montevideo," Uruguay (descr. of young male; type in Berlin Museum examined); Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 523, 1904—"Montevideo," Bolivia (Chiquitos), Brazil (Rio Araguaya, Villa Bella de Matto Grosso, Engenho do Gama), and Tucumán (crit., plumages, range); Ihering, Cat. Faun. Braz., 1, p. 378, 1907 (range); Chubb, Ibis, 1910, p. 634—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 385, 1910 (range in Argentina); Bertoni, Faun. Parag., p. 65, 1914—Puerto Bertoni, Paraguay; Naumburg, Bull. Amer. Mus. N. H., 60, p. 346, 1930—Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 245, 1930—San Fermín, Santa Cruz, Bolivia (crit.).

*Pyrrhula minuta* (not *Loxia minuta* Linnaeus) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 87, 1837—Chiquitos, Bolivia (part, spec. "quoddam pileo cinereo, gutture regioneque parotica nigrobrunneis," etc., in Paris Museum examined).

*Sporophila hypoxantha* (not of Cabanis) Burmeister, Syst. Uebers. Th. Bras., 3, p. 249, 1856—part, descr. of "young" and "subadult."

*Spermophila ruficollis* Pelzeln, Orn. Bras., 3, p. 225, 1870—Goyáz (Rio Araguaya) and Matto Grosso (Villa Bella and Engenho do Gama), Brazil (spec. examined); Sclater, Ibis, 1871, p. 21—"Montevideo" and Matto Grosso; Sharpe, Cat. Bds. Brit. Mus., 12, p. 140, 1888—Brazil; Hartert and Venturi, Nov. Zool., 16, p. 174, 1909—Tucumán, Santa Fé (Mocoví, Ocampo), and Santiago del Estero (Selvo).

*Spermophila plumbeiceps* Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 5, June, 1895—San Pablo, Tucumán (descr. of nearly adult male; type in Turin Museum examined); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 177, 1902—Rio Salí, Tucumán (descr. of female); Baer, Ornith., 12, p. 216, 1904—Tucumán; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 42, 1905—

<sup>1</sup> *Sporophila ruficollis* Cabanis is closely related to *S. m. hypoxantha*, but differs in the male sex by having the cheeks, auriculars, throat, and foreneck conspicuously darker than, and more or less contrasting with, the deep tawny of breast and abdomen, though the coloration of the former area varies in different individuals from auburn to chestnut brown and sooty black.

In another connection (Verh. Zool. Bot. Ges. Wien, 54, pp. 523-524, 1904), we have discussed at length the various plumages of this little-known species, pointing out that *S. plumbeiceps* had been based on a more advanced stage of the bird described by Cabanis as *S. ruficollis*. We have merely to add that material recently examined shows the perfectly adult male, which we had not seen at the time, to have the upper back neutral gray like the crown, much as in *S. m. hypoxantha*. The only constant characters separating it are the dark coloration of the gular area and the somewhat more saturated tone (amber brown to hazel) of the posterior under parts, which, in *S. m. hypoxantha*, are of a uniform clear tawny from chin to tail coverts. The juvenile plumage is light Saccardo's umber above and cream buff (of varying shades) underneath, while cheeks, auriculars, and throat are cinnamon brown to chestnut, forming a well-defined area. The two plumages are connected by every imaginable intermediate stage in the series at hand. The original locality, "Montevideo," is open to serious doubt.

*Additional material examined.*—Bolivia: Chiquitos, 1; San Fermín, Chiquitos, 2.—Argentina: San Pablo, Tucumán, 1; San Felipe, Tucumán, 1; Tucumán, 3; Ceres, Santa Fé, 1.—Brazil: Villa Bella, Matto Grosso, 2; Engenho do Gama, Matto Grosso, 1; Rio Araguaya, Goyáz, 1.—Uruguay: "Montevideo," 1.

Rio Salí; Pereyra, El Hornero, 5, p. 218, 1933—Zelaya, Buenos Aires (male, Feb. 25).

*Sporophila plumbeiceps*,<sup>1</sup> El Hornero, 5, p. 427, 1934—Villagay, Entre Ríos.

*Sporophila plumbeiceps posneri* Bertoni, Rev. Soc. Cient. Parag., 2, p. 256, Sept., 1930—Monte Sociedad, Paraguayan Chaco (type in coll. of A. Breyer, Buenos Aires).

*Range*.—Eastern Bolivia (Chiquitos, Dept. Santa Cruz); central Brazil, in states of Matto Grosso (Villa Bella, Engenho do Gama) and Goyás (Rio Araguaya); northern Argentina, from Tucumán and Santiago del Estero south to Santa Fé, Entre Ríos (Villagay), and Buenos Aires (one record from Zelaya); Paraguay (Sapucay; Puerto Bertoni); Uruguay ("Montevideo").

2: Argentina (Concepción, Tucumán, 2).

### ***Sporophila palustris* (Barrows).<sup>2</sup> MARSH SEED-EATER.**

*Spermophila palustris* Barrows, Bull. Nutt. Orn. Cl., 8, p. 92, April, 1883—Concepción del Uruguay, Entre Ríos (cotypes in British Museum and Museum of Comparative Zoology, Cambridge, Mass., examined; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 371, 1930); Sharpe, Cat. Bds. Brit. Mus., 12, p. 112, pl. 2, 1888—Concepción; Selater and Hudson, Arg. Orn., 1, p. 45, 1888—Concepción; (?) Kerr, Ibis, 1901, p. 223—Villa Concepción, Paraguay.

*Sporophila palustris* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 384, 1910—Concepción del Uruguay.

*Range*.—Northeastern Argentina, in Province of Entre Ríos (Concepción del Uruguay).

### ***Sporophila lorenzi* Hellmayr.<sup>3</sup> LORENZ'S SEED-EATER.**

*Sporophila lorenzi* Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 522, 1904—Cayenne(?) (type in Vienna Museum).

*Range*.—South America (exact habitat unknown).

<sup>1</sup> Anonymous.

<sup>2</sup> *Sporophila palustris* (Barrows) is still known only from the eight specimens secured by its discoverer in 1880 and 1881 on the edge of a marsh at Concepción del Uruguay, Entre Ríos. Graham Kerr, it is true, recorded the species from Villa Concepción, northern Paraguay, but as I am informed by Mr. N. B. Kinnear, the specimen is not in the British Museum and the identification is perhaps a little doubtful. The species, while allied to *S. m. hypoxantha*, is immediately recognizable by having the cheeks, auriculars, throat, and foreneck white in abrupt contrast to the tawny remainder of the under parts. I have examined four of Barrows' skins, two males at Cambridge (Mass.), and a couple in the British Museum. I do not know what became of the remaining four specimens obtained by that naturalist.

<sup>3</sup> *Sporophila lorenzi* Hellmayr: Nearest to *S. palustris*, and agreeing in the white color of the cheeks, auriculars, throat, and foreneck; but wings much longer; lesser and median upper wing coverts bright rufous (between Sandford's brown and Burnt Sienna) instead of black edged with deep gull gray; larger wing coverts

**\**Sporophila bouvreuil bouvreuil* (P. L. S. Müller). PINKISH  
SEED-EATER.**

*Loxia bouvreuil* P. L. S. Müller, Natursyst., Suppl., p. 154, 1776—based on "Bouvreuil de l'Isle Bourbon," Daubenton, Pl. Enl., pl. 204, fig. 1 (male); "l'île de Bourbon," errore=Bahia, Brazil (as designated by Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 520, 1904).

*Loxia nigro aurantia* Boddaert, Tabl. Pl. Enl., p. 12, December, 1783—based on the same.

*Loxia aurantia* Gmelin, Syst. Nat., 1, (2), p. 853, 1789—part, "male" (ex Daubenton, Pl. Enl., pl. 204, fig. 1).<sup>1</sup>

*Pyrrhula pyrrhomelas* Vieillot, Tabl. Enc. Méth., Orn., livr. 93, p. 1027, 1823—"Brésil, rapporté par Delalande fils"—Rio de Janeiro, Brazil (descr. of male; type in Paris Museum).

*Loxia brevirostris* Spix, Av. Spec. Nov. Bras., 2, p. 47, pl. 59, figs. 1 (male), 2 (female), 1825—"in confinibus Parae," Brazil (male cotype in Munich Museum; cf. Hellmayr, Abhandl. 2 Kl. Bayr. Akad. Wiss., 22, No. 3, p. 680, 1906).

*Pyrrhula capistrata* Vigors, Zool. Journ., 5, No. 18, p. 273, 1830—Brazil (descr. of male; type in coll. of Zoological Society of London, its present location unknown).

*Loxia fraterculus* Lesson, Traité d'Orn., livr. 6, p. 451, Feb., 1831—Brazil (part, adult; type in Paris Museum examined).

*Spermophila rubiginosa* Swainson, Nat. Hist. Classif. Bds., 2, p. 294, 1837—based on *Loxia brevirostris* Spix, Av. Spec. Nov. Bras., 2, pl. 59, fig. 1.

*Spermophila pyrrhomelas* Bonaparte, Consp. Gen. Av., 1, p. 495, 1850—Brazil.

*Sporophila aurantia* Cabanis, Mus. Hein., 1, p. 15, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 250, 1856—Nova Friburgo, Rio, and Lagõa Santa, Minas Geraes.

*Spermophila aurantia* Sclater, Cat. Coll. Amer. Bds., p. 104, 1862—Rio, Brazil; Pelzeln, Orn. Bras., 3, p. 226, 1870—part, Mattodentro, São Paulo, and Rio Araguaya, Goyáz; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 413—Lagõa Santa and Sete Lagõas, Minas Geraes.

*Spermophila caboclinho* Pelzeln, Orn. Bras., 3, pp. 224, 331, 1870—Rio de Janeiro (descr. of young male and female; cotypes in Vienna Museum

and remiges exteriorly edged with avellaneous or wood-brown; no white alar speculum, the inner remiges being tinged with dull tawny at the base of the outer webs instead; axillaries, under wing coverts, and narrow edge along inner web of remiges light ochraceous-buff. Wing (male), 60; tail, 44; bill, 9.

The type of this seed-eater is still unique. It was purchased by Johann Natterer from a Parisian natural history dealer by the name of Lennier in 1840. Its habitat is altogether uncertain. "Cayenne" is not likely to be its true patria, since neither Cherrie nor Klages, both of whom made large collections in French Guiana, nor any other naturalist ever met with it in that colony. Renewed examination of the type raised suspicions as to the validity of the species, which may have been based upon an artifact. The wings do not seem to be those of a *Sporophila*, though we have not been able to determine the species originally owning them.

<sup>1</sup> Figure 2 of the same plate, regarded by Boddaert and Gmelin as the female, is the African *Alario alario* (Linnaeus).

examined); Sclater, Ibis, 1871, p. 19 (ex Pelzeln); Sharpe, Cat. Bds. Brit. Mus., 12, p. 138, 1888 (ex Pelzeln).

*Spermophila nigro-aurantia* Sclater, Ibis, 1871, p. 4—Brazil (monog.); Forbes, Ibis, 1881, p. 335—Recife, Pernambuco; Sharpe, Cat. Bds. Brit. Mus., 12, p. 113, 1888—"Pará," Pernambuco, Bahia, Rio de Janeiro, and "Pelotas, Rio Grande do Sul" (errore); Ihering, Rev. Mus. Paul., 3, p. 161, 1899—Ypiranga, São Paulo; idem, l.c., 4, p. 154, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; Hagmann, Zool. Jahrb. (Syst.), 26, p. 29, 1907—Mexiana.

*Sporophila bouvreuil* Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 519, 1904 (crit., nomencl., synonym.); idem, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 680, 1906—Pará (crit.); idem, l.c., 26, No. 2, p. 119, 1912—Mexiana; Snethlage, Journ. Orn., 61, p. 521, 1913—Marajó and Mexiana; idem, Bol. Mus. Goeldi, 8, p. 429, 1914—Marajó (Rio Arary, Fazenda Teso San José) and Mexiana; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 61, 1926—São Bento, Maranhão; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 297, 1929—São Bento, Maranhão; Pinto, Rev. Mus. Paul., 19, p. 279, 1935—Ilha da Bimbarra and Corupeba, Bahia; idem, l.c., 20, p. 143, 1936—Fazenda Thomé Pinto, Goyáz.

*Spermophila bouvreuil* Snethlage, Journ. Orn., 55, p. 296, 1907—Mexiana.

*Sporophila nigroaurantia* Ihering, Cat. Faun. Braz., 1, p. 375, 1907—Ypiranga, São Paulo.

**Range.**—Campo region of eastern Brazil, from the delta of the Amazon (islands of Mexiana and Marajó) through Pará, Maranhão, Pernambuco, and Bahia south to Goyáz (Rio Araguaya; Fazenda Thomé Pinto), Minas Geraes (Lagõa Santa, Sete Lagõas), Rio de Janeiro, and eastern São Paulo (Ypiranga, Mattodentro).<sup>1</sup>

2: Brazil (São Bento, Maranhão, 2).

***Sporophila bouvreuil pileata* (Sclater).<sup>2</sup> NATTERER'S  
SEED-EATER.**

<sup>1</sup> Adult males from the southern extremity of the range (Mattodentro, eastern São Paulo), by paler, more pinkish-cinnamon coloration, verge towards *S. b. pileata*. The locality "Pelotas, Rio Grande do Sul," is unquestionably erroneous.

*Additional material examined.*—Island of Marajó, 2; "Pará," 1; Bahia, 10; Rio Araguaya, Goyáz, 1 (adult male); Rio de Janeiro, 4; Mattodentro, São Paulo, 4.

<sup>2</sup> *Sporophila bouvreuil pileata* (Sclater) differs from the nominate race merely by the paler cinnamon, instead of bright orange cinnamon, upper and light pinkish cinnamon to pinkish buff, instead of vinaceous-cinnamon to orange cinnamon, under parts and sides of the head in the male sex. In worn plumage, the lower surface becomes dingy white, and corresponding changes take place in the coloration of the dorsal side.

This is obviously the inland representative of *S. b. bouvreuil* in the State of São Paulo. While specimens from the eastern section (Mattodentro) are not properly separable from the nominate race, though some average rather paler, males from the more arid parts in the north and south of the state (Irisanga, Bata-taes, Borda do Matto, Itararé) are distinguished without difficulty by the above characters. Yet, one of two taken by Natterer near São Paulo City on January 16, 1819, is so decidedly intermediate in coloration that there can be no longer any question as to their conspecific relationship. Specimens from Misiones (Bonpland)

- Spermophila pileata* Sclater, Proc. Zool. Soc. Lond., 1864, p. 607—"San Paulo"—Borda do Matto, northern São Paulo (type in coll. of P. L. Sclater, now in British Museum examined); Pelzeln, Orn. Bras., 3, p. 226, 1870—São Paulo (São Paulo, Itararé, Borda do Matto, Irisanga); Sclater, Ibis, 1871, p. 5, pl. 1, fig. 3 (male)—São Paulo and "Montevideo," errore (monog.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 115, 1888—"São Paulo" [=Borda do Matto] and Irisanga, São Paulo; Ihering, Rev. Mus. Paul., 3, p. 161, 1899—State of São Paulo; Blaauw, Ibis, 1919, p. 83 (molt).
- Loxia fraterculus* Lesson, Traité d'Orn., livr. 6, p. 451, Feb., 1831—Brazil (part, var. "de couleur tannée blanchâtre et à corps presque blanc").
- Sporophila alaudina* (not *Pyrrhula alaudina* Lafresnaye and d'Orbigny) Burmeister, Syst. Uebers. Th. Bras., 3, p. 251, 1856—"Montevideo," errore (descr. of male).
- Sporophila pileata* Ihering, Cat. Faun. Braz., 1, p. 375, 1907—Batataes, northern São Paulo; Bertoni, Faun. Parag., p. 65, 1914—Encarnación, Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 533, 1915—Bonpland, Misiones; Bertoni, El Hornero, 1, p. 258, 1919—Encarnación and Puerto Bertoni, Paraguay; Tremoleras, l.c., 2, p. 23, 1920—"Uruguay."
- Sporophila pileata paraguayensis* Chubb, Ibis, (9), 4, p. 634, 1910—Sapucay, Paraguay (type in British Museum examined).

**Range.** Interior and southern parts of the State of São Paulo, southern Brazil, west to northeastern Argentina (Bonpland, Misiones) and eastern Paraguay (Encarnación, Puerto Bertoni, Sapucay).

### *Sporophila saturata* Hellmayr.<sup>1</sup> SAO PAULO SEED-EATER.

- Sporophila saturata* Hellmayr, Verh. Zool. Bot. Gesells. Wien, 54, p. 520, 1904—state of São Paulo, Brazil (type in coll. of H. von Berlepsch, now in Frankfurt Museum); Ihering, Cat. Faun. Braz., 1, p. 375, 1907—Mugy das Cruzes, São Paulo.

and Paraguay (Sapucay) are nowise distinguishable from Natterer's original series. The locality "Montevideo" attached to one of Sellow's birds in the Berlin Museum is due to a confusion of labeling. It probably came from São Paulo, instead.

Azara's "Pico grueso variable" (No. 126), upon which *Coccothraustes mutans* Vieillot (Nouv. Dict. Hist. Nat., nouv. éd., 13, p. 525, 1817) is based, seems to refer in part to *S. b. pileata*, but contains also some other elements, the description being an undeterminable composite.

**Material examined.**—Brazil, São Paulo: São Paulo, 2; Borda do Matto, 2, Itararé, 5; Irisanga, 1.—Argentina: Bonpland, Misiones, 1.—Paraguay: Sapucay, 3.

<sup>1</sup> *Sporophila saturata* Hellmayr: Nearest to *S. b. bouvreuil*, but adult male with upper and under parts very much darker, deep Sandford's brown to chestnut; female unknown. Wing (adult male), 54–55; tail, 40–42.

This little-known species may prove to be a local race of *S. bouvreuil*. The two recorded specimens were obtained in the State of São Paulo, the type by Dushanek at an unspecified locality, the second by J. Natterer at Goáyo (not far from Mugy das Cruzes) on January 8, 1819. The type, an adult male in fresh plumage, is very nearly as dark chestnut as *S. cinnamomea*, while Natterer's bird, in rather worn condition, is paler and more cinnamomeous—about deep Sandford's brown. From *S. cinnamomea*, both examples may be at once distinguished by their black (instead of neutral gray) pileum and longer upper tail coverts, as well as by the absence of white at the base of the rectrices.

**Material examined.**—Brazil, São Paulo: Goáyo, 1; unspecified, 1.

*Spermophila aurantia* (not *Loxia aurantia* Gmelin) Pelzeln, Orn. Bras., 3, p. 226, 1870—part, Goãyo, near Mugy das Cruzes, São Paulo.

*Range*.—Southeastern Brazil, in State of São Paulo (Goãyo, near Mugy das Cruzes).

***Sporophila cinnamomea* (Lafresnaye).<sup>1</sup> CHESTNUT-COLORED SEED-EATER.**

*Pyrrhula cinnamomea* Lafresnaye, Rev. Zool., 2, p. 99, 1839—"prope Rio Grande" probably Goyáz, Brazil (descr. of male; type in coll. of Charles Brelay, Bordeaux, its present location unknown).

*Spermophila cinnamomea* Bonaparte, Consp. Gen. Av., 1, p. 495, 1850—Rio Grande (ex Lafresnaye); Pelzeln, Orn. Bras., 3, p. 226, 1870—Porto do Rio Araguaya, Goyáz; Sclater, Ibis, 1871, p. 20 (ex Lafresnaye and Pelzeln); Sharpe, Cat. Bds. Brit. Mus., 12, p. 138, 1888—Brazil (ex Lafresnaye).

*Sporophila cinnamomea* Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 521, 1904—Rio Grande and Rio Araguaya, Goyáz (crit.); Ihering, Cat. Faun. Braz., 1, p. 377, 1907—Goyáz.

*Range*.—Interior of Brazil, in State of Goyáz (Rio Grande and Porto do Rio Araguaya).<sup>2</sup>

***Sporophila nigro-rufa* (Lafresnaye and d'Orbigny).<sup>3</sup> BLACK-BACKED SEED-EATER.**

*Pyrrhula nigro-rufa* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 87, 1837—Chiquitos, Bolivia (descr. of male; cotypes in Paris Museum examined).

*Spermophila nigro-rufa* Bonaparte, Consp. Gen. Av., 1, p. 495, 1850—Bolivia; Pelzeln, Orn. Bras., 3, p. 226, 1870—Poruti and [Villa Bella de] Matto Grosso, Matto Grosso (spec. examined); Sclater, Ibis, 1871, p. 6, pls. 1, 2

<sup>1</sup> *Sporophila cinnamomea* (Lafresnaye), as we have pointed out elsewhere, is a very distinct species immediately recognizable by its deep chestnut body plumage, neutral gray cap and longer upper tail coverts, and white base to the rectrices. The female is still unknown.

Aside from the type whose present whereabouts are in doubt, the only specimens on record are three males obtained by Natterer near Porto do Rio Araguaya, Goyáz, and preserved in the Vienna Museum. The original locality, "Rio Grande," clearly does not refer to the city of that name in Rio Grande do Sul (cf. Ihering, Anuario Est. Rio Grande do Sul, 16, p. 120, 1899), but was more likely to be intended for the Rio Grande, a river in Goyáz state.

<sup>2</sup> Whether Azara's "Pico grueso variable" (No. 126) from Paraguay also comprised this species, as Bertoni (Faun. Parag., p. 64, 1914) seems to think, remains somewhat questionable.

<sup>3</sup> *Sporophila nigro-rufa* (Lafresnaye and d'Orbigny), though allied to the *S. bouvreuil* group, is readily distinguished by having the upper tail coverts as well as the hindneck and upper back black like the crown. The rump, sides of head, and under parts, furthermore, are of a different shade, being bright ochraceous-tawny. The color of the bill, in adult males, varies from reddish brown to black. Matto Grosso specimens agree with the types from Chiquitos.

*Material examined*.—Bolivia: Chiquitos, 2.—Brazil, Matto Grosso: Villa Bella de Matto Grosso, 6; Poruti, 2.

(male, female)—Chiquitos, Bolivia, and Matto Grosso, Brazil (monog.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 604—Chiquitos; Sharpe, Cat. Bds. Brit. Mus., 12, p. 114, 1888—Matto Grosso.

*Sporophila hypoxantha* (not of Cabanis) Burmeister, Syst. Uebers. Th. Bras., 3, p. 249, 1856—part, "very old male."

*Sporophila nigrorufa* Ihering, Cat. Faun. Braz., 1, p. 375, 1907 (range); (?) Bertoni, Faun. Parag., p. 65, 1914—"northern Chaco"; Naumburg, Bull. Amer. Mus. N. H., 60, p. 346, 1930—Matto Grosso.

*Range*.—Central Brazil, in extreme western Matto Grosso (Villa Bella and Poruti), and eastern Bolivia (Chiquitos).

### ***Sporophila hypochroma* Todd.<sup>1</sup> BOLIVIAN SEED-EATER.**

*Sporophila hypochroma* Todd, Proc. Biol. Soc. Wash., 28, p. 79, April 13, 1915  
—Buena Vista, Bolivia (descr. of male; type in Carnegie Museum).

*Range*.—Eastern Bolivia (Buena Vista, Prov. del Sara, Dept. Santa Cruz).

### **\**Sporophila castaneiventris* Cabanis. CHESTNUT-BELLIED SEED-EATER.**

*Sporophila castaneiventris* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 679, 1849—Cumaka, coast of British Guiana; Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—Falls of the Rio Madeira, Bolivia; Riker and Chapman, Auk, 7, p. 268, 1890—Santarém, Brazil; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 349—La Merced, Chanchamayo, Peru; Ihering, Rev. Mus. Paul., 6, p. 432, 1905—Rio Juruá, Brazil; idem, Cat. Faun. Braz., 1, p. 374, 1907—Rio Juruá (range);

<sup>1</sup> *Sporophila hypochroma* Todd: Adult male.—Pileum, upper and middle back, and upper tail coverts neutral gray (paler and less bluish than in *S. castaneiventris*) with indistinct dusky centers to the feathers of crown and back; wing coverts and remiges blackish, the coverts and the inner secondaries broadly edged with very pale, nearly whitish gray (much paler than in *S. castaneiventris*); fourth to eighth primaries at base of outer webs white, forming a distinct alar speculum; a similar white spot, but wholly concealed by the overlying greater wing coverts, on the median secondaries; rectrices black, externally edged with gray; loreal and temporal regions gray like the crown; upper eyelid gray, lower one whitish; lower back and rump as well as cheeks, auriculars, and whole under surface uniform chestnut; axillaries and under wing coverts white, the latter gray towards the edge of the wing; basal half of remiges (excepting outermost primary) white; bill black. Wing, 54; tail, 41; bill, 8. Female unknown.

*Sporophila hypochroma*, a very distinct species, resembles *S. cinnamomea* in the wholly chestnut under parts, but differs by neutral gray (instead of chestnut, like lower back and rump) hindneck and anterior back, as well as by lacking the white at the base of the rectrices. From *S. castaneiventris* it may be distinguished by chestnut lower back, rump, cheeks, and auriculars; absence of gray on sides and flanks; paler gray of upper parts, and thicker, stouter bill; from *S. minuta hypoxantha* by chestnut, instead of tawny, coloration of under parts and rump, etc. From the single adult male, which, thanks to the describer's courtesy, I have been able to examine, it is, of course, impossible to ascertain to which of the species just mentioned *S. hypochroma* is most nearly related, especially without knowing the female, but there can be no doubt as to its being perfectly distinct.

*Material examined*.—Bolivia: Buena Vista, 1.



Hellmayr, Nov. Zool., 14, pp. 7, 30, 45, 353, 1907—Rio Tapajóz (Urucurituba), Obidos, Teffé (Rio Solimões), and Humaythá (Rio Madeira), Brazil; Berlepsch, l.c., 15, pp. 120, 320, 1908—Cayenne and Saint Jean du Maroni, French Guiana; Snethlage, Journ. Orn., 56, pp. 11, 500, 1908—Rio Purús (Bom Lugar) and Rio Tapajóz (Goyana), Brazil; Hellmayr, Nov. Zool., 17, p. 281, 1910—Marmellos, Rio Madeira, Brazil; Snethlage, Bol. Mus. Goeldi, 8, p. 428, 1914—Rio Tapajóz (Pinhel, Itaituba, Goyana), Rio Purús (Bom Lugar), Arumanduba, and Monte Alegre, Brazil; Chapman, Bull. Amer. Mus. N. H., 36, p. 557, 1917—La Morelia, Caquetá, Colombia; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 89, 1918—vicinity of Paramaribo, Surinam.

*Spermophila castaneiventris* Bonaparte, Consp. Gen. Av., 1, (2), p. 495, 1850—Cayenne; Selater, Cat. Coll. Amer. Bds., p. 104, 1862—Guiana; Selater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 181—Nauta, Peru; idem, l.c., 1867, p. 977—Pebas, Peru; idem, l.c., 1869, p. 597—Cosnipata, Peru; Pelzeln, Orn. Bras., 3, p. 225, 1870—Borba (Rio Madeira), Rio Amazon, and Marabitanas (Rio Negro), Brazil; Selater, Ibis, 1871, p. 7 (monog.); Selater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 185—Cosnipata; idem, l.c., 1873, p. 264—Nauta and Pebas, Peru; Allen, Bull. Essex Inst., 8, p. 79, 1876—Santarém, Brazil; Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 17—Yurimaguas, Peru; Salvin, Ibis, 1885, p. 214—Bartica Grove, British Guiana; Taczanowski, Orn. Pér., 3, p. 12, 1886—Peru (Nauta, Pebas, Yurimaguas, Iquitos); Sharpe, Cat. Bds. Brit. Mus., 12, p. 108, 1888—British Guiana (Bartica Grove) and Peru (Pebas, Iquitos, Nauta, lower Ucayali, Cosnipata); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 24, 1899—Gualaquiza and Zamora, Ecuador; Ménégau, Bull. Mus. Hist. Nat. Paris, 13, p. 498, 1907—French Guiana; Penard, Vog. Guyana, 2, p. 388, 1910—Surinam (habits, nest, and eggs).

*Microphila castaneiventris* Chubb, Bds. Brit. Guiana, 2, p. 436, 1921—Great Falls of Demerara, Bartica, and Georgetown.

*Sporophila castaneiventris rostrata* Todd, Proc. Biol. Soc. Wash., 35, p. 91, July, 12, 1922—Santarém, Brazil (type in Carnegie Museum).

*Sporophila castaneiventris castaneiventris* Chapman, Bull. Amer. Mus. N. H., 55, p. 609, 1926—eastern Ecuador; Naumburg, l.c., 60, p. 345, 1930—Calama, Rio Madeira.

*Range.*—Tropical lowlands of French, Dutch, and British Guiana, and the whole Amazonian region from Santarém and Arumanduba on the lower Amazon west to the eastern foot of the Andes in Colombia, Ecuador, Peru, and Bolivia.<sup>1</sup>

<sup>1</sup> It will be very difficult to subdivide this species, as has been attempted by Mr. Todd. The tone of the chestnut color underneath varies considerably within the same locality. The palest specimen is from Rio Espirito Santo, Bolivia, the darkest from Cosnipata, Peru. Another male from the latter locality, however, does not differ from the Guianan average. On the other hand, there is an undeniable tendency to develop larger bills among the birds found on the south side of the lower Amazon from the Tapajóz to the Rio Madeira, a male from Borba being particularly noticeable in that respect. However, other individuals are hardly different on this score, and the smallest bills are those of two males from Bolivia (Rio Espirito Santo) and Cosnipata, which, if the dividing line be formed

12: British Guiana (Georgetown, 1; unspecified, 1); Brazil (Itacoatiará, Amazonas, 4); Peru (Yurimaguas, 5; Moyobamba, 1).

**Sporophila melanogaster** (Pelzeln).<sup>1</sup> BLACK-BELLIED  
SEED-EATER.

*Spermophila melanogaster* Pelzeln, Orn. Bras., 3, pp. 225, 332, 1870—Itararé and Borda do Matto (near Mogy-mirim), São Paulo, Brazil (descr. of male; cotypes in Vienna Museum examined); Sclater, Ibis, 1871, p. 21—São Paulo (ex Pelzeln); Sharpe, Cat. Bds. Brit. Mus., 12, p. 140, 1888 (ex Pelzeln).

*Sporophila melanogastra* Hellmayr, Verh. Zool. Bot. Ges. Wien, 54, p. 525, 1904 (descr., crit.).

*Sporophila melanogaster* Ihering, Cat. Faun. Braz., 1, p. 378, 1907—Itararé and Mogy-mirim, São Paulo (ex Pelzeln).

*Range*.—Southeastern Brazil, in State of São Paulo (Itararé and Borda do Matto, near Mogy-mirim).

Genus **CATAMENIA** Bonaparte<sup>2</sup>

*Catamenia* Bonaparte, Consp. Gen. Av., 1, (2), p. 493, end of 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 78, 1855), *Linaria analis* Lafresnaye and d'Orbigny.

*Idiospiza* Todd, Proc. Biol. Soc. Wash., 30, p. 127, July, 1917—type, by orig. desig., *Linaria inornata* Lafresnaye.

by the Amazon Valley, should undoubtedly go with *S. c. rostrata*! It appears to me that the study of adequate series from throughout the range is required to prove the existence of two or more races.

*Additional material examined*.—British Guiana: Bartica Grove, 5.—Dutch Guiana: Paramaribo, 1.—French Guiana: Saint Jean du Maroni, 2; unspecified, 5.—Brazil: Marabitanas, Rio Negro, 1; São Paulo de Olivença, 2; Tefé, Rio Solimões, 1; Rio Amazonas, 1; Obidos, 1; Urucurituba, Rio Tapajóz, 3; Santarém, 2; Borba, Rio Madeira, 1; Calama, 1; Humaytá, 2; Marmellos, 1; Rio Juruá, 1.—Colombia: "Bogotá," 1.—Ecuador: Zamora, 2.—Peru: Iquitos, 3; La Merced, Chanchamayo, 1; Cosnipata, Cuzco, 3.—Bolivia: Rio Espirito Santo, 1.

<sup>1</sup> *Sporophila melanogaster* (Pelzeln): Male similar to *S. castaneiventris* in proportions and general style of coloration, but upper parts and sides of head, neck, and breast as well as flanks much paler, light ashy gray instead of plumbeous, and the median under parts from throat to tail coverts dull black instead of rufous, not to mention several minor differences. Wing (male), 55–56; tail, 40–42; bill, 9 mm.

This very distinct form, which may prove to be a geographical representative of *S. castaneiventris*, still rests on Natterer's two specimens, an adult male (in worn breeding garb) shot at Itararé, on Feb. 24, 1821, and an immature male (in fresh plumage) obtained at Borda do Matto, on November 20, 1822. The female is unknown.

<sup>2</sup> Further subdivision of this genus appears to me unwarranted. I not only concur with Mr. Zimmer's view (Field Mus. Nat. Hist., Zool. Ser., 17, pp. 459–460, 1930) regarding the close affinities existing between *C. analis* and *C. inornata*, but also believe that *C. homochroa*, which differs again by slenderer, less convex bill, should not be separated either. The structural features characterizing the three groups are to my mind good specific characters, and their natural relationship is much better expressed by uniting them in one genus than by admitting three monotypic genera of questionable value.

*Duncanula* Chubb, Ann. Mag. Nat. Hist., (9), 7, p. 193, Feb., 1921—type, by orig. desig., *Catamenia homochroa* Sclater.

**\**Catamenia analis analis* (Lafresnaye and d'Orbigny).**

**D'ORBIGNY'S SEED-EATER.**

*Linaria analis* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 83, 1837—Sicasica (La Paz) and Cochabamba, Bolivia (descr. of male and female; cotypes in Paris Museum examined);<sup>1</sup> d'Orbigny, Voy. Amér. Mérid., Ois., p. 364, pl. 48, fig. 1, 1844—La Paz, Inquisivi, Cochabamba, Totorá, and Chuquisaca, Bolivia.

*Catamenia analis subinsignis* Carriker, Proc. Acad. Nat. Sci. Phila., 87, p. 340, Oct. 10, 1935—Sandillani, La Paz, Bolivia (type in the Academy of Natural Sciences, Philadelphia).

*Catamenia analis* Bonaparte, Consp. Gen. Av., 1, (2), p. 493, 1850—part, male, Bolivia; Burmeister, Journ. Orn., 8, p. 256, 1860—Sierra of Mendoza; idem, Reise La Plata St., 2, p. 488, 1861—Sierra of Mendoza; Sclater, Cat. Coll. Amer. Bds., p. 105, 1862—Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 606—Sorata (Yungas) and d'Orbigny's localities, Bolivia; White, l.c., 1882, p. 599—Fuerte de Andalgala, Catamarca; Sclater and Hudson, Arg. Orn., 1, p. 57, 1888—near Mendoza and Catamarca; Philippi, Orn., 4, p. 159, 1888—Sibaya, Tarapacá, Chile; Stempelmann and Schulz, Bol. Acad. Cienc. Córdoba, 10, p. 398, 1890—Córdoba; Holland, Ibis, 1893, p. 485—Santa Elena, Buenos Aires (spec. examined); Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 8, 1897—Salta; Wetmore, Bull. U. S. Nat. Mus., 133, p. 401, 1926—Mendoza (Potrerillos and Rio Tunuyán); Friedmann, Bull. Mus. Comp. Zool., 68, p. 232, 1927—Concepción, Tucumán; Pereyra, El Hornero, 4, p. 35, 1927—Mendoza.

*Spermophila analis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 106, 1888—Bolivia, Mendoza, and Córdoba (Cosquin); Koslowsky, Rev. Mus. La Plata, 6, p. 279, 1895—Chilecito, La Rioja; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 177, 1902—Tucumán; Baer, Orn., 12, p. 216, 1904—La Criolla, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 237, 1904—Rosario de Lerma, Salta; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—Tucumán; Giacomelli, El Hornero, 3, p. 69, 1923—La Rioja.

*Spermophila analis analis* Hartert and Venturi, Nov. Zool., 16, p. 176, 1909—Mendoza and Tucumán.

*Spermophila analis* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 383, 1910 (range in Argentina); Sanzin, El Hornero, 1, p. 152, 1918—Mendoza; Budin, l.c., 4, p. 411, 1931—Maimará, Jujuy.

*Catamenia analis analis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 52, 1932—Sibaya, Tarapacá, Chile.

*Spermophila analoides* (not *Linaria analoides* Lafresnaye) Sharpe, Cat. Bds. Brit. Mus., 12, p. 107, 1888—part, spec. k-m, Sorata, Bolivia.

<sup>1</sup>Two other cotypes are in the Lafresnaye Collection, now in the Museum of Comparative Zoology, Cambridge, Mass. (cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 373, 1930).

*Range*.—Temperate zone of the Andes of Bolivia (depts. of La Paz, Cochabamba, and Sucre), extreme northern Chile (Cordillera of Tarapacá), and western Argentina, from Jujuy to Mendoza and the Sierra de Córdoba; in migration east to Santa Elena, western Buenos Aires.<sup>1</sup>

6: Bolivia (Parotani, Cochabamba, 3); Argentina (Concepción, Tucumán, 3).

**Catamenia analis griseiventris** Chapman.<sup>2</sup> GRAY-BELLIED  
SEED-EATER.

*Catamenia analoides griseiventris* Chapman, Proc. Biol. Soc. Wash., 32, p. 267, Dec., 31, 1919—Cuzco, Peru (type in the American Museum of Natural History, New York); idem, Bull. U. S. Nat. Mus., 117, p. 109, 1921—Cuzco, Pisac, Chospiyoc, Huaracundo Canyon, and above Torontoy, Urubamba, Peru.

<sup>1</sup> In opposition to what obtains in other races, the development of the white alar speculum is subject to considerable individual variation in this form. This is well illustrated by a series of twelve males collected by G. Garlepp within a few weeks at La Paz, Bolivia. One has a conspicuous white speculum involving the basal portion of both webs of the second to ninth primaries—precisely as in the male type of *L. analis*, not marked as to locality, but presumably from Sicasica, La Paz, which may thus be regarded as terra typica. Two other specimens have no trace of white on the outer web of the primaries, and the remaining ones are variously intermediate between the two varieties, which are represented both by adults and immature birds. The under parts likewise vary a good deal, being either uniform gray from throat to abdomen, or having a more or less extensive whitish area in the middle of the lower belly. There is no correlation with the absence or presence of the white alar speculum, and the two “extremes” are again connected by intermediates. *C. a. subinsignis* is without a shadow of doubt based on individual mutants. The variability of La Paz birds may possibly indicate an approach to *C. a. griseiventris*, since all of the specimens examined from Cochabamba and Argentina are possessed with a more or less distinct speculum. Two examples from Santa Elena, Buenos Aires, are perfectly typical of the present form. The male, secured on November 4, 1892, agrees with others from Tapacari, Bolivia, having a large white speculum occupying the basal portion of both webs of the second to eighth primaries, and differs only by more extensive, also purer white abdominal area; the female, taken on March 5, 1893, is absolutely identical with one from Tapacari.

*Additional material examined*.—Bolivia: Sorata, 3; La Paz, 12; Chulumani, La Paz, 3; Tapacari, Cochabamba, 5; Cochabamba, 1; Sucre, 2.—Argentina: Tafi, Tucumán, 3; near Mendoza, 2; Cosquin, Córdoba, 1; Santa Elena, Buenos Aires, 2.

<sup>2</sup> *Catamenia analis griseiventris* Chapman: Similar to *C. a. analis*, but with more white in the tail, all of the rectrices except the middle pair being crossed on the inner web from shaft to margin by a broad band measuring about 15 mm. on the outermost feather. In *C. a. analis*, the four or five lateral rectrices are merely marked with an oval or elongated white spot not reaching the inner margin of the web. Wing (males), 66–69; tail, 57–61.

The difference in the tail-markings is the only character by which I can separate the Cuzco race from typical *analis*. The six specimens examined resemble the average of the La Paz variety in having the outer webs of the outer primaries margined with white, more broadly so at the base, without meeting, however, the white inner quill-lining. None of them has any white on the abdomen, like many of the La Paz birds.

*Material examined*.—Peru, Cuzco: Paucartambo, 4; Tinta, 3.

*Catamenia analis* (not *Linaria analis* Lafresnaye and d'Orbigny) Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, pp. 152, 599—Tinta, Peru; Sclater, l.c., 1873, p. 780—Paucartambo, Cuzco, Peru; Sclater and Salvin, l.c., 1874, p. 677—Paucartambo; Taczanowski, Orn. Pér., 3, p. 19, 1886—Carumas, Peru.

*Spermophila analoides* (not *Linaria analoides* Lafresnaye) Sharpe, Cat. Bds. Brit. Mus., 12, p. 107, 1888—part, spec. h, i, Tinta.

*Range.*—Temperate zone of southeastern Peru, in Dept. of Cuzco.

**\**Catamenia analis analoides* (Lafresnaye).<sup>1</sup> LAFRESNAYE'S SEED-EATER.**

*Linaria analoides* Lafresnaye, Rev. Zool., 10, p. 75, 1847—Lima, Peru (type in coll. of T. B. Wilson, now in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899).

*Catamenia analis* (not *Linaria analis* Lafresnaye and d'Orbigny) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 521—Lima.

*Catamenia analoides* Bonaparte, Consp. Gen. Av., 1, (2), p. 493, 1850—Lima, Peru; Taczanowski, Orn. Pér., 3, p. 20, 1886—Lima (crit.); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 376—Lima; idem, Orn., 13, p. 68, 1906—Coracora, Ayacucho, Peru.

*Catamenia analoides analoides* Chapman, Amer. Mus. Novit., 143, p. 9, 1924—Lima, Pisco, Huaral, Huacho, and Vitarte, Lima, and Huancabamba, Piura.

*Catamenia analis analoides* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 460, 1930—Matucana, Peru (crit.).

*Catamenia lafresnaye* Sharpe, Hand List Bds., 5, p. 214, 1909—new name for *Linaria analoides* Lafresnaye.

*Range.*—Pacific slope of the coast Cordillera of Peru, from Piura (Huancabamba) to Ayacucho (Coracora).

4: Peru (Mirador, near Macate, Ancachs, 1; Matucana, Lima, 3).

**\**Catamenia analis insignis* Zimmer.<sup>2</sup> MARAÑÓN SEED-EATER.**

*Catamenia analis insignis* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 460, Dec. 10, 1930—Cajamarca, Peru (type in Field Museum).

*Catamenia analoides* (not *Linaria analoides* Lafresnaye) Salvin, Nov. Zool., 2, p. 6, 1895—Cajamarca and Cajabamba, Peru (spec. examined).

<sup>1</sup> *Catamenia analis analoides* (Lafresnaye) is clearly but a race of the *analis* group, as has been explained by Mr. Zimmer, to whose remarks I may add that a goodly number of the La Paz specimens discussed beyond have the white on the inner web of the remiges extended toward the tip very nearly as in the coastal form.

A single, not quite mature male from Coracora, Ayacucho, agrees with others from Lima in coloration, but is slightly larger (wing, 67½; tail, 55½).

*Additional material examined.*—Peru: Huancabamba, 5; Caraz, Ancachs, 1; Lima, 12; Chosica, 2; Matucana, 3; Coracora, Ayacucho, 1.

<sup>2</sup> *Catamenia analis insignis* Zimmer: Nearest to *C. a. griseiventris*, but edges along the outer web of the outer primaries gray instead of white, and white tail

*Range*.—Temperate zone of the upper Marañón Valley, northern Peru (Cajamarca; Baños, near Cajamarca; Cajabamba; Succha; Cullcui).

5: Peru (Cajamarca, 3; Cullcui, 1; Chachapoyas, Amazonas, 1).

**Catamenia analis söderstromi** Chapman.<sup>1</sup> SÖDERSTROM'S  
SEED-EATER.

*Catamenia analoides söderstromi* Chapman, Amer. Mus. Novit., **143**, p. 9, Nov. 6, 1924—El Paso, Prov. Azuay, Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., **55**, p. 613, 1926—Riobamba, Cumbaya, Hacienda Garzón, El Paso, Quito, Tumbaco, and Yaguarcocha, Ecuador.

*Catamenia analoides* (not *Linaria analoides* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., **26**, pp. 155, 552, 1858—Cuenca, Riobamba, and Guano, Ecuador; idem, Cat. Coll. Amer. Bds., p. 105, 1862—Cuenca; Pelzeln, Verh. Zool. Bot. Ges. Wien, **26**, p. 772, 1877—Quito; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 293—Cechce, Bugnac, and on road from Alausi to Bugnac; idem, l.c., 1885, p. 85—between Chimborazo and Riobamba; Hartert, Nov. Zool., **5**, p. 485, 1898—Ibarra and Cayambe; Salvadori and Festa, Boll. Mus. Zool. Torino, **14**, No. 357, p. 26, 1899—Chillo Valley and Tumbaco; Goodfellow, Ibis, 1901, p. 474—Quito and Chillo Valley; Lönnberg and Rendahl, Ark. Zool., **14**, No. 25, p. 79, 1922—Quito, Tumbaco, and Cumbaya; Berlioz, Bull. Mus. Hist. Nat. Paris, **34**, p. 76, 1928—Tumbaco.

*Spermophila analoides* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 107, 1888—part, spec. c-g, Cuenca and Sical, Ecuador.

*Catamenia lafresnaye* (not of Sharpe) Ménégaux, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., **9**, p. B77, 1911—Guápulo and Tumbaco.

*Range*.—Temperate zone of western Ecuador.

**\*Catamenia analis schistaceifrons** Chapman.<sup>2</sup> CHAPMAN'S  
SEED-EATER.

band not so extensive, measuring about 12 mm. on the outermost rectrix. Differing from *C. a. analoides* by gray (instead of whitish) abdomen and absence of the white alar speculum. Wing (males), 67–70; tail, 57–60.

One adult male from Cajabamba has the anal region whitish and the black frontal band even wider than in *analoides*, while the others have about as little blackish suffusion on the forehead as *griseiventris*.

*Additional material examined*.—Peru: Cajabamba, 5; Baños, near Cajamarca, 1; Cajamarca, 3; Succha, 1.

<sup>1</sup> *Catamenia analis söderstromi* Chapman: Similar to *C. a. insignis*, but smaller; under tail coverts darker chestnut; and the outer primaries edged with pure white at the base of the outer webs, suggesting an alar speculum. Wing (males), 60–64; tail, 50–55.

*Material examined*.—Ecuador: Quito, 6; Chillo Valley, 4; Tumbaco, 2; Ibarra, 1; Riobamba, 4; Guallabamba, near Riobamba, 2.

<sup>2</sup> *Catamenia analis schistaceifrons* Chapman is a little-known form whose characters, owing to lack of adequate material, cannot be determined at present. The only three available specimens from “Bogotá,” all males according to their

*Catamenia analoides schistaceifrons* Chapman, Bull. Amer. Mus. N. H., 34, p. 649, Dec. 30, 1915—La Mar, Cundinamarca, Colombia (type in the American Museum of Natural History); idem, l.c., 36, p. 560, 1917—La Mar and Suba, Colombia.

*Catamenia analis* (not *Linaria analis* Lafresnaye and d'Orbigny) Sclater, Proc. Zool. Soc. Lond., 23, p. 159, 1855—Bogotá.

*Spermophila analoides* (not *Linaria analoides* Lafresnaye) Sharpe, Cat. Bds. Brit. Mus., 12, p. 107, 1888—part, spec. a, b, Bogotá.

*Range*.—Temperate zone of the eastern Andes of Colombia (Bogotá region).

1: Colombia (Bogotá, 1).

***Catamenia analis alpica* Bangs.<sup>1</sup> SANTA MARTA SEED-EATER.**

*Catamenia alpica* Bangs, Proc. New Engl. Zool. Cl., 3, p. 89, March 11, 1902—Páramo de Chiruqua, Sierra de Santa Marta, Colombia (descr. of female; type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 373, 1930); Todd and Carriker, Ann. Carnegie Mus., 14, p. 510, pl. 7 (male, female), 1922—Taquina, Macotama, and Páramo de Chiruqua (descr. of male; crit.).

*Catamenia* sp. Bangs, Proc. Biol. Soc. Wash., 13, p. 102, 1899—Páramo de Chiruqua.

*Range*.—Temperate and Páramo zones of the Sierra de Santa Marta in northern Colombia.

**\**Catamenia inornata inornata* (Lafresnaye). PLAIN-COLORED SEED-EATER.**

*Linaria inornata* Lafresnaye, Rev. Zool., 10, p. 75, 1847—Bolivia (type in coll. of T. B. Wilson, now in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899).

*Sporophila rufirostris* (Landbeck MS.) Leybold, Journ. Orn., 13, p. 404, 1865—near La Guardia, east of Portillo Pass, Prov. Mendoza (cotypes in

gray unstreaked plumage, closely resemble certain individuals of *C. a. söderstromi* with grayish white lower abdomen, but lack all trace of the white margins at the base of the outer web of the outer primaries. In the latter respect they agree with *C. a. insignis*, but are smaller and have darker chestnut under tail coverts. One has a well-defined black frontal band like the male from Cajabamba mentioned beyond, while the two others show no trace of that color. Wing, 61–64; tail, 48–52.

<sup>1</sup> *Catamenia analis alpica* Bangs: Evidently very close to *C. a. schistaceifrons*, but larger and with less white in the tail. Wing, (males) 69–70, (female) 66; tail, 55–57, (female) 52.

I have not been able to make direct comparison with Bogotá skins, but my notes on two examples, in the collections at Pittsburgh and Cambridge respectively, indicate that *C. a. alpica* must be very near to, if not identical with, *C. a. schistaceifrons*. The Santa Marta form being likewise known only from a few individuals, the final decision as to its status depends on the study of further material.

Two males (one fully adult) from the Sierra Nevada recently examined in the British Museum are indeed larger (wing, 67, 69; tail, 54, 58) and have much

National Museum, Santiago de Chile; cf. Gigoux and Looser, *Bol. Mus. Nac. Santiago*, 13, p. 21, 1930).

*Spermophila rufirostris* Sclater, *Ibis*, 1871, p. 21 (ex Leybold).

*Catamenia rufirostris* Stempelmann and Schulz, *Bol. Acad. Nac. Cienc. Córdoba*, 10, p. 398, 1890—Sierra de Córdoba, Argentina.

*Spermophila inornata* Sharpe, *Cat. Bds. Brit. Mus.*, 12, p. 104, 1888—part, spec. a-c, Bolivia and Mendoza.

*Catamenia inornata* Sclater and Hudson, *Arg. Orn.*, 1, p. 57, 1888—near Mendoza.

*Sporophila inornata* Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 396, 1910—Sierra de Córdoba and western Mendoza.

*Catamenia inornata inornata* Hellmayr, *Arch. Naturg.*, 85, A, Heft 10, p. 37, 1920—Ollachea, Dept. Puno, Peru (crit.); Chapman, *Bull. U. S. Nat. Mus.*, 117, p. 109, 1921—Ttica-Ttica and above Matchu Picchu, Dept. Cuzco, Peru.

*Catamenia beecheyi* Sharpe, *Hand List Bds.*, 5, p. 214, 1909—new name for *Linaria inornata* Lafresnaye.<sup>1</sup>

*Range*.—Puna zone of extreme southeastern Peru (depts. of Cuzco and Puno), Bolivia, and western Argentina from Jujuy to Mendoza and the Sierra de Córdoba.<sup>2</sup>

8: Argentina (Maimará, Jujuy, 1; Las Pavas, Tucumán, 6; Lago Helada, Catamarca, 1).

**\**Catamenia inornata minor* Berlepsch.<sup>3</sup> LESSER PLAIN-COLORED SEED-EATER.**

less white in the tail than a single Bogotá skin. The adult bird has a distinct, though narrow, black frontal band.

*Material examined*.—Colombia: Macotama, 1; Páramo de Chiruqua, 1 (the type); Sierra Nevada de Santa Marta (alt. 9,200 and 10,000 ft. resp.), 2.

<sup>1</sup> There is no reason whatever for this change, *Linaria inornata* Lafresnaye being by no means preoccupied by *Pyrrhula inornata* Vigors (*Zool. Voy. Blossom*, p. 20, 1829), an indeterminable species (of *Carpodacus*?), of which the type has disappeared.

<sup>2</sup> Birds from western Argentina are absolutely identical with a Bolivian series. Those from southeastern Peru average perhaps very slightly smaller, but are nevertheless strictly referable to the larger southern form. No material is available from the Sierra of Córdoba.

Males from Bolivia (La Paz, Iquico) measure: wing, 73–77<sup>1</sup>/<sub>2</sub>; tail, 63–69 mm. Males from Ollachea, Puno, Peru, measure: wing, 73–75; tail, 60–65 mm.

*Additional material examined*.—Argentina: near Mendoza, 1.—Bolivia: La Paz, 2; Iquico, Illimani, 3; unspecified, 1.—Peru: Ollachea, Dept. Puno, 8.

<sup>3</sup> *Catamenia inornata minor* Berlepsch: Similar to *C. i. inornata*, but smaller in all dimensions.

While Ecuadorian specimens, when compared to a series of the nominate race, are easily separable by their lesser size (wing of males, 64–68; tail, 57–62), there is a gradual increase in dimensions among Peruvian specimens. Males from Huánuco and Maraynioc sometimes attain 70 mm. in the length of the wing, and Chapman, for birds from Oroya, Junín, indicates even 71<sup>1</sup>/<sub>2</sub> mm. as maximum figure. In the Marañón Valley variation in size is considerable. While



*Fringilla analis* (not *Linaria analis* Lafresnaye and d'Orbigny) Lafresnaye, Rev. Zool., 6, p. 291, 1843—Colombia=Bogotá (descr. of female; type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 372, 1930).

*Catamenia inornata minor* Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 115—based on *Catamenia homochroa* (not of Sclater) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 293; Cechce, Ecuador (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 169, 1927); Berlepsch and Stolzmann, l.c., 1896, p. 349—Maraynioc, Peru (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 559, 1917—Santa Isabel, Valle de las Pappas, La Pradera, and Páramo de Choachi, Colombia (crit.).

*Catamenis inornata* var. *aequatorialis* Dubois, Mém. Soc. Zool. France, 13, p. 401, 1894—Ecuador (type in Brussels Museum).

*Catamenia rufirostris* (not *Sporophila rufirostris* Leybold) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 521 Maraynioc, Peru; idem, Orn. Pér., 3, p. 21, 1886—Peru (Maraynioc, Cutervo, Tambillo).

*Catamenia inornata* (not *Linaria inornata* Lafresnaye) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 229—Tambillo, Peru; idem, l.c., 1880, p. 199—Cutervo and Tambillo, Peru; Sclater, l.c., 1881, p. 486 west side of Cordillera above Lima, alt. of 10,000 to 12,000 ft., Peru; Berlepsch and Taczanowski, l.c., 1885, p. 85—San Rafael, Ecuador; Salvin, Nov. Zool., 2, p. 7, 1895—Huamachuco, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 26, 1899—Cañar, Ecuador.

*Spermophila inornata* Sharpe, Cat. Bds. Brit. Mus., 12, p. 104, 1888—part, spec. d, e, Peru (above Lima and Acancocha).

*Catamenia homochroa* (not of Sclater) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 293—Cechce, Ecuador (crit., measurements).

*Catamenia beecheyi minor* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B76, 1911—Quito, Ecuador.

*Idiospiza inornata minor* Chapman, Bull. Amer. Mus. N. H., 55, p. 612, 1926—Ecuador (Pichincha, Lloa, above Chambo, Guamaní, Chimborazo, Bestión, El Paso, Guachanamá, Taraguacocha); Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 76, 1928—Cerro Mojanda, Ecuador.

*Range*.—Páramo zone of the central and eastern Andes of Colombia and of the Andes of Ecuador and Peru south to Junín.

6: Colombia (Neyon, Bogotá, 1); Peru (mountains near Huánuco, Huánuco, 5).

an adult male from Cutervo (wing, 66; tail, 60) and one female each from Cutervo and Tambillo (wing, 61; tail, 54, 56) fall well within the measurements of Ecuadorian birds, an adult male from Santiago (wing, 74; tail, 65) and a female from Huamachuco (wing, 70; tail, 62) are fully as large as typical *inornata*. Taken as a whole, the inhabitants of Peru—with the exception of the southeastern section—seem, however, better referred to *minor*. Color differences do not exist between the two races, so far as I can see.

*Additional material examined*.—Colombia: Santa Isabel, central Andes, 2.—Ecuador: above Mindo, 1; Pichincha, 4; Sinché, Chimborazo, 1; Cañar, 2; "Quito," 3.—Peru: Cutervo, 2; Tambillo, 1; Santiago, 1; Huamachuco, 1; Maraynioc, 4.

**Catamenia oreophila** Todd.<sup>1</sup> MOUNTAIN SEED-EATER.

*Catamenia oreophila* Todd, Proc. Biol. Soc. Wash., 26, p. 169, Aug. 8, 1913—San Lorenzo, Santa Marta region, Colombia (type in the Carnegie Museum, Pittsburgh).

*Idiospiza oreophila* Todd and Carriker, Ann. Carnegie Mus., 14, p. 508, 1922—San Lorenzo and Cerro de Caracas, Colombia (crit., meas., habits).

*Range*.—Temperate and Páramo zones of the Santa Marta mountains in northern Colombia.

**Catamenia homochroa**<sup>2</sup> *homochroa* Selater. SCLATER'S SEED-EATER.

*Catamenia homochroa* Selater, Proc. Zool. Soc. Lond., 26, p. 552, 1858—Matos, Ecuador (descr. of male; type in coll. of P. L. Selater, now in British Museum); idem, l.c., 28, p. 88, 1860—Calacali and Puellaro, near Quito, Ecuador; idem, Cat. Coll. Amer. Bds., p. 106, 1862—Matos, Calacali, and Puellaro; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 521—Maraynioc, Peru; idem and Berlepsch, l.c., 1885, p. 85—San Rafael, Ecuador; Taczanowski, Orn. Pér., 3, p. 22, 1886—Maraynioc, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 350—Maraynioc; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 26, 1899—Papallacta, Ecuador; Goodfellow, Ibis, 1901, p. 474—vicinity of Quito; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B76, 1911—Oyacachi and Lloa, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 560, 1917—Paramillo, west of Popayán, Valle de las Pappas, and Laguneta, Colombia; Bangs and Noble, Auk, 35, p. 462, 1918—Tabaconas, Peru.

*Spermophila homochroa* Sharpe, Cat. Bds. Brit. Mus., 12, p. 105, 1888—part, spec. a-h, Ecuador (Matos, Calacali, Puellaro, Sical, "Intag") and Colombia (Bogotá).

<sup>1</sup> *Catamenia oreophila* Todd: "Similar to the female of *C. i. minor*, but rump and upper tail coverts dull grayish olive, almost concolor with the back, the latter with the dusky streaks less distinct; bill much smaller and more compressed; tail relatively longer and less emarginate. Wing (female), 62-64; tail, 56-60; bill, 9-10." (Todd, l.c.)

This species, which we have not seen, is of doubtful affinity. The only existing male, while generally resembling the female, is darker, nearly slaty on forehead and throat. This peculiar coloration speaks for its immaturity, and suggests that the male, when adult, probably assumes a slate gray plumage, corresponding to that of *C. homochroa*. Although the species is compared to *C. inornata minor*, certain characters, such as the less turgid bill, seem to associate it with *C. homochroa*, which, judging from Todd's measurements, it also resembles in proportions of wings and tail. In coloration, the female of *C. oreophila* is stated to be intermediate, being paler than *C. homochroa* and darker than *C. inornata minor*, but not nearly so heavily streaked above as either. While more detailed information about this bird is urgently desired, I would not be surprised if it turned out to be a geographical race of *C. homochroa*.

<sup>2</sup> *Catamenia homochroa* may be readily distinguished from *C. inornata* by longer and differently shaped bill, the mandible in particular being less turgid, with the culmen straighter and the tip acutely pointed. In the plumage of the adult male, moreover, the gray is darker without any trace of the blackish streaks in the interscapular region, so conspicuous in the allied species. It appears to be quite distinct specifically.

*Idiospiza homochroa* Chapman, Bull. Amer. Mus. N. H., 55, p. 613, 1926—Hacienda Garzón, Pichincha, El Corazón, Cerro Huamani, Papallacta, and Oyacachi, Ecuador.

*Range*.—Temperate and Páramo zones of Colombia (except Santa Marta region), Ecuador, Peru, and Bolivia.<sup>1</sup>

**Catamenia homochroa duncani** (Chubb).<sup>2</sup> DUNCAN'S  
SEED-EATER.

*Duncanula duncani* Chubb, Ann. Mag. Nat. Hist., (9), 7, p. 193, Feb., 1921—Mount Roraima, British Guiana (descr. of young male; type in coll. of F. V. McConnell, now in British Museum, examined); idem, Bds. Brit. Guiana, 2, p. 440, pl. 7 (young male, female), 1921—Mount Roraima.

*Catamenia* sp. Salvin, Ibis, 1885, p. 216—Roraima.

*Spermophila homochroa* (not *Catamenia homochroa* Sclater) Sharpe, Cat. Bds. Brit. Mus., 12, p. 105, 1888—part, spec. i-l, Roraima.

*Idiospiza homochroa duncani* Chapman, Bull. Amer. Mus. N. H., 63, p. 119, 1931—Mounts Roraima and Duida (crit.).

*Range*.—Upper altitudes of Mounts Roraima and Duida, British Guiana and Venezuela.

Genus **AMAUROSPIZOPSIS** Griscom<sup>3</sup>

*Amaurospizopsis* Griscom, Bull. Mus. Comp. Zool., 75, p. 412, Jan., 1934—type, by orig. desig., *Amaurospizopsis relictus* Griscom.

<sup>1</sup> We are quite unable to appreciate any local variation in this widespread species, examples from Bolivia being to all appearance identical with others from Bogotá. A single bird in juvenile plumage from Onda in the Páramo zone of the Andes of Mérida, Venezuela, differs considerably in coloration and has a more elevated, though otherwise similarly shaped bill. Without knowing the adult stage, it is impossible to determine the status of the Venezuelan bird.

*Material examined*.—Colombia: "Bogotá," 4.—Ecuador: Quito, 5; Puellaró, 1; Riobamba, 1; San Rafael, 3; Oyacachi, 2; Lloa, 1; Papallacta, 2; unspecified, 2.—Peru: Maraynioc, 2.—Bolivia: Unduavi, 2.

<sup>2</sup> *Catamenia homochroa duncani* (Chubb): Exceedingly similar to the nominate race, but adult males apparently never uniform dark gray, being more or less tinged with brownish, especially on the abdomen; immature (first winter?) and juvenile plumages more heavily streaked, with the ground color of the latter more ochraceous. Wing, 65–67, (female) 61–64; tail, 58–61, (female) 56–59.

This is a very unsatisfactory race, but perhaps distinguishable by the above divergencies. As has been correctly explained by Chapman, *C. homochroa* varies so greatly with age and season that the segregation of local races encounters unusual difficulties. As a matter of fact, an immature male from Roraima is exactly like a bird from Puellaró, Ecuador, while one of the females hardly differs from a Bogotá skin.

*Material examined*.—Venezuela: Roraima, 6.

<sup>3</sup> Genus *Amaurospizopsis* Griscom: "Very close to *Amaurospiza*, but larger, with proportionately shorter and deeper stubbier bill; rectal bristles twice as long, greatly exceeding the plumules, and much stiffer; nostril large, with a marked operculum; culmen distinctly ridged, a groove just over the nasal fossae, extending forward two-thirds of the way to the tip of the maxilla; maxilla with five other fainter ridges and grooves extending diagonally from the nostril to the commissure." (Griscom, l.c.)

**Amaurospizopsis relictus** Griscom.<sup>1</sup> GUERRERO BLUE  
SEED-EATER.

*Amaurospizopsis relictus* Griscom, Bull. Mus. Comp. Zool., 75, p. 412, Jan., 1934—Chilpancingo, Guerrero, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Range.*—Tropical zone of southwestern Mexico, in State of Guerrero (Chilpancingo).

Genus **AMAUROSPIZA** Cabanis

*Amaurospiza* Cabanis, Journ. Orn., 9, p. 3, 1861—type, by orig. desig.,  
*Amaurospiza concolor* Cabanis.

**Amaurospiza concolor grandior** Griscom.<sup>2</sup> NICARAGUAN BLUE  
SEED-EATER.

*Amaurospiza concolor grandior* Griscom, Bull. Mus. Comp. Zool., 75, p. 414, Jan., 1934—Peña Blanca, eastern Nicaragua (type in the American Museum of Natural History, New York).

*Range.*—Tropical zone of eastern (Caribbean) Nicaragua (Peña Blanca, San Emilio, Rio Coco, and Rio Tuma).

**Amaurospiza concolor concolor** Cabanis. CABANIS'S BLUE  
SEED-EATER.

*Amaurospiza concolor* Cabanis, Journ. Orn., 9, p. 3, 1861—Costa Rica (type in Berlin Museum examined; descr. of adult male); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—Costa Rica (ex Cabanis); Frantzius, Journ. Orn., 17, p. 301, 1869—Costa Rica; Salvin, Ibis, 1869, p. 313—Panama Railway; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 350, 1885—Costa Rica and Panama (Chiriquí; Paraiso Station, Panama Railroad); Sharpe, Cat. Bds. Brit. Mus., 12, p. 156, 1888—Paraiso Station

<sup>1</sup> *Amaurospizopsis relictus* Griscom: "Uniform dull grayish blue, slightly bluer on the lesser wing coverts, grayer and paler on belly; chin dusky; loreal region black; sides of head below eye dusky; remiges blackish, the primaries narrowly edged externally with grayish, the secondaries very broadly with grayish blue; rectrices blackish, narrowly edged on outer webs with grayish blue; bill dusky, lower mandible abruptly whitish for terminal third; legs and feet dusky. Wing (adult male), 69; tail, 59; tars., 19; bill, 9½." (Griscom, l.c.)

This recently described species, which we have not seen, appears to be an exact duplicate of *Amaurospiza concolor* in coloration, but is slightly larger and has a somewhat differently shaped bill. In spite of these structural divergencies, it may, however, prove to be merely a northern race of that bird, and more material is greatly needed to establish its true taxonomic position. At present, a single adult male is all that is known of it.

<sup>2</sup> *Amaurospiza concolor grandior* Griscom: Evidently indistinguishable in color from *A. c. concolor*, but with slightly longer bill. Wing (males), 62½–64; bill, 9.8–10.2.

Three adult males recently examined tend to show that the Nicaraguan race is not maintainable. Only one has a larger bill, while in the two others this organ is decidedly shorter than in specimens from Costa Rica and Panama.

*Material examined.*—Nicaragua: San Emilio, Lake Nicaragua, 2; Rio Coco, 1.

and Chiriquí, Panama; Underwood, Ibis, 1896, p. 436—Miravalles, Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 579, 1901—Panama (Paraiso Station) to Costa Rica (monog.); Bangs, Auk, 24, p. 311, 1907—Boruca, Térraba Valley, Costa Rica; idem, Proc. Biol. Soc. Wash., 22, p. 38, 1909—Tenorio, Costa Rica (descr. of female); Carriker, Ann. Carnegie Mus., 6, p. 886, 1910—Tenorio and Miravalles, Costa Rica.

*Amaurospiza concolor concolor* Griscom, Bull. Mus. Comp. Zool., 75, p. 414, 1934—Miravalles and Tenorio, Costa Rica (crit.).

*Amaurospiza concolor australis* Griscom, Bull. Mus. Comp. Zool., 75, p. 415, 1934—Boquete, Chiriquí, Panama (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Range*.—Tropical zone of Pacific Costa Rica (Miravalles, Tenorio, Boruca) and Panama (Chiriquí; Paraiso Station, Panama Railroad).<sup>1</sup>

### ***Amaurospiza concolor aequatorialis* Sharpe.<sup>2</sup> EQUATORIAL BLUE SEED-EATER.**

*Amaurospiza aequatorialis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 157, 1888—Pallatanga and Balzar, western Ecuador (type, from Pallatanga, in British Museum examined); Chapman, Bull. Amer. Mus. N. H., 55, p. 614, 1926—junction of the Rio Coco and Rio Chimbo, Ecuador (crit.).

*Spiza*——? Sclater, Proc. Zool. Soc. Lond., 28, p. 66, 1859—Pallatanga.

<sup>1</sup> Splitting of the Pacific birds into two races has been attempted by Griscom, but the alleged differences prove to be purely individual. The type collected by Frantzius somewhere in Costa Rica agrees with one from Chiriquí in dimensions and coloration, both having the lower abdomen slightly more grayish (less bluish) than the breast, whereas two from Miravalles, like another from Chiriquí and a male from Paraiso Station, are nearly uniform dull (grayish) indigo underneath. Females are even more variable individually. One from Chiriquí is dark mars brown, the under parts being just a shade paler, only the rump somewhat more olivaceous; while a second female from the same locality is very much paler throughout, about Dresden brown with a faint rufescent tone on the foreneck. The same variation obtains in *A. c. aequatorialis*. Griscom designates "Miravalles" as type locality of *A. concolor*. The Berlin Museum does not possess any birds collected by Frantzius at that place, and I believe Underwood was the first naturalist to visit this locality (in 1895 or 1896). The wings of adult males examined vary, regardless of origin, from 59 to 63; the tail from 52 to 57 mm.

*Material examined*.—Costa Rica: Miravalles, 2; unspecified, 1.—Panama: Chiriquí, 5; Paraiso Station, 1.

<sup>2</sup> *Amaurospiza concolor aequatorialis* Sharpe: Very similar to *A. c. concolor*, but with smaller bill; coloration of male somewhat paler, particularly the pileum lighter indigo blue. Wing, 61, (female) 55–57; tail, 47–52; bill, 9–10.

The type, an immature male with numbers of reddish brown feathers underneath, has no white under the wing, while a nearly adult male in the American Museum of Natural History shows white under wing coverts. The female varies just as much as does the same sex of its northern ally, one from Balzar, Ecuador, being very nearly as dark mars brown as the dark-colored individual from Chiriquí mentioned above, whereas two from San Pablo, Colombia, have the upper parts brighter, more cinnameous, and the ventral surface likewise more reddish. Though more adequate material is required to determine its characters, there can be no question as to *A. aequatorialis* being but a slightly differentiated race of Cabanis's Blue Seed-eater.

*Material examined*.—Ecuador: Balzar, 1; Pallatanga, 1 (the type).—Colombia: San Pablo, Prov. Tuqueres, 2.

*Range*.—Tropical zone of southwestern Colombia (San Pablo, Prov. Tuqueres) and western Ecuador (Balzar, Pallatanga, Rio Chimbo).

**\*Amaurospiza moesta** (Hartlaub).<sup>1</sup> HARTLAUB'S BLUE SEED-EATER.

*Sporophila moesta* Hartlaub, Journ. Orn., 1, p. 36, 1853—Brazil (type in Bremen Museum examined; descr. of adult male).

*Amaurospiza coerulatra* Cabanis, Journ. Orn., 14, p. 306, 1866—Rio [de Janeiro], Brazil (type in Zurich Museum; descr. of adult male); Finsch, Proc. Zool. Soc. Lond., 1870, p. 583 (crit.).

*Haplospiza* (?) *crassirostris* Pelzeln, Orn. Bras., 3, pp. 227, 332, 1870—Tejuco, near São Carlos, São Paulo, Brazil (type in Vienna Museum examined; descr. of female); Ihering, Rev. Mus. Paul., 5, p. 267, 1902 (ex Pelzeln).

*Amaurospiza axillaris* Sharpe, Cat. Bds. Brit. Mus., 12, p. 157, 1888—Brazil (the type, a skin of "Rio" preparation, in British Museum examined; descr. of adult male).

*Amaurospiza moesta* Hellmayr, Verh. Zool.-Bot. Ges. Wien, 54, p. 516, 1904—Rio and São Paulo, southeastern Brazil (crit., synonym.); Ihering, Cat. Faun. Braz., 1, p. 379, 1907 (range); Dabbene, El Hornero, 1, p. 97, 1918—Iguazú, Misiones; Bertoni, l.c., 1, p. 258, 1919—Puerto Bertoni, Paraguay; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 187, 1926—Paraná (São Domingo, Banhados, Fazenda Durski, Cará Pintada, Candido de Abreu, and Salto Guayra); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 294, 1929—Tranqueira, Maranhão.

*Dolospingus* (?) Bertoni, Faun. Parag., p. 63, 1914—Puerto Bertoni, Paraguay.

*Range*.—Eastern Brazil (Tranqueira, Maranhão; Rio de Janeiro; Therezopolis, Rio; Tejuco, near São Carlos, São Paulo; São Domingo, Banhados, Fazenda Durski, etc., Paraná) and Misiones, Argentina (Iguazú, Caraguatay, and El Dorado).

6: Brazil (Therezopolis, Rio de Janeiro, 1; Tranqueira, Maranhão, 1); Argentina (Caraguatay, Misiones, 3; El Dorado, Misiones, 1).

Genus **DOLOSPINGUS** Elliot

*Dolospingus* Elliot, Ibis, (3), 1, p. 402, 1871—type, by monotypy, *Dolospingus nuchalis* Elliot=*Oryzoborus* (?) *fringilloides* Pelzeln.

<sup>1</sup> *Amaurospiza moesta* (Hartlaub) differs from *A. concolor* by much duller, less bluish upper parts passing into blackish on the pileum, and dull black under surface with white under wing coverts and white inner margins to the remiges. The bill is differently shaped, being wider at the base and laterally more compressed towards the tip, the culmen more sharply ridged, etc. Wings and tail are decidedly longer.

The types of *S. moesta* and *A. axillaris* are practically identical, except that the latter has the back marked with subapical black spots like our specimen from Maranhão, whereas the other males examined have the back either uniform or with mere suggestions of darker markings. This seems to be a purely individual

**Dolospingus fringilloides** (Pelzeln).<sup>1</sup> WHITE-NAPED SEED-EATER.

*Oryzoborus* (?) *fringilloides* Pelzeln, Orn. Bras., 3, pp. 223, 329, 1870—Rio Xié, upper Rio Negro, Brazil (type in Vienna Museum examined; descr. of female).

*Dolospingus nuchalis* Elliot, Ibis, (3), 1, p. 402, pl. 11 (=male), 1871—"Orinoco, on the Borders of British Guiana" (type in the American Museum of Natural History, New York, examined; descr. of adult male); Sharpe, Cat. Bds. Brit. Mus., 12, p. 141, 1888 (ex Elliot); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 190, 1916—Orinoco (ex Elliot).

*Amaurospiza fringilloides* Sharpe, Cat. Bds. Brit. Mus., 12, p. 157, 1888—Rio Xié (ex Pelzeln); Ihering, Cat. Faun. Braz., 1, p. 380, 1907—Rio Negro.

*Dolospingus fringilloides* Berlepsch and Hellmayr, Journ. Orn., 53, p. 23, 1905—Rio Negro (crit.).

*Range*.—Southern Venezuela (Savanna Grande, Mount Duida) and adjacent section of northeastern Brazil (Rio Xié; Yavanari, upper Rio Negro).

Genus **ORYZOBORUS** Cabanis

*Oryzoborus* Cabanis, Mus. Hein., 1, p. 151, Oct., 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 75, 1855), *Loxia torrida* "Gmelin" [=Scopoli]=*Loxia angolensis* Linnaeus.

**\*Oryzoborus crassirostris maximiliani** Cabanis.<sup>2</sup> WIED'S RICE GROSBEAK.

*Fringilla crassirostris* (not *Loxia crassirostris* Gmelin) Wied, Beitr. Naturg. Bras., 3, (1), p. 564, 1830—Rio Espirito Santo, Espirito Santo, and Caravelas, Bahia (cotypes lost, formerly in Wied Collection; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 222, 1889).

variation. The female of *A. moesta*, in general coloration, is very much like the same sex of *A. concolor*, but larger, with much heavier, deeper bill.

*Additional material examined*.—Brazil: unspecified, 1 (male; the type); Rio de Janeiro, 2 (male, female); Tejuco, São Paulo, 1 (female).

<sup>1</sup> Berlepsch and Hellmayr's suggestion that *Dolospingus nuchalis* and *Oryzoborus fringilloides* are likely to be different sexes of the same species has been fully confirmed by a series of specimens received by the American Museum of Natural History from the Duida region. The four males are *D. nuchalis*, the three females are what Pelzeln described as *O. fringilloides*, the latter name having one year's priority. The original locality, "Orinoco, near the borders of British Guiana," is probably inexact, as no one ever found this remarkable bird on the lower stretches of that mighty river.

*Material examined*.—Venezuela: "Orinoco," 1 (type of *D. nuchalis*); Savanna Grande, Mount Duida, 7.—Brazil: Rio Xié, 1 (type of *O. fringilloides*); Yavanari, right bank of Rio Negro, 1 (male).

<sup>2</sup> *Oryzoborus crassirostris maximiliani* Cabanis: Similar to *O. c. crassirostris*, but tail longer; axillaries and under wing coverts, in the adult male, broadly edged with black; female with upper parts rather darker and less rufescent, and the axillaries and under wing coverts more buffy (less whitish). Wing, 74½–77, (female) 69; tail, 68–72; bill, 16–17; depth at base, 14–15.

*Additional material examined*.—Brazil: Rio de Janeiro, 2; Fazenda Esperança, Goyáz, 2; Cuyabá, Matto Grosso, 1.

*Oryzoborus maximiliani* Cabanis, Mus. Hein., 1, p. 154 (footnote), Oct., 1851—new name for *Fringilla crassirostris* Wied; Burmeister, Syst. Uebers. Th. Bras., 3, p. 238, 1856—Rio Espirito Santo (ex Wied); (?)idem, Journ. Orn., 8, p. 257, 1860—near Tucumán; (?)idem, Reise La Plata St., 2, p. 488, 1861—near Tucumán; Sclater, Cat. Coll. Amer. Bds., p. 102, 1862—"Brazil"; (?)Sclater and Hudson, Arg. Orn., 1, p. 44, 1888—near Tucumán (ex Burmeister); Sharpe, Cat. Bds. Brit. Mus., 12, p. 78, 1888—Rio de Janeiro; Allen, Bull. Amer. Mus. N. H., 3, p. 368, 1891—Chapada, Matto Grosso; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 177, 1902 (not seen near Tucumán); idem, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 42, 1905 (not seen at Tucumán); Ihering, Cat. Faun. Braz., 1, p. 369, 1907—Franca, São Paulo (range); Dabbene, Bol. Soc. Physis, 1, p. 355, 1914—"Tucumán" (crit.).

*Oryzoborus crassirostris maximiliani* Hellmayr, Nov. Zool., 15, p. 32, 1908—Fazenda Esperança, Goyáz (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 344, 1930—Matto Grosso.

*Oryzoborus crassirostris* subsp. *maximiliani* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 380, 1910—Tucumán (ex Burmeister).

*Oryzoborus crassirostris* Pelzeln, Orn. Bras., 3, p. 222, 1870—part, Cuyabá, Matto Grosso (spec. examined).

*Range.*—Southern and interior Brazil, in states of Bahia (Caravellas), Espirito Santo (Rio Espirito Santo), Rio de Janeiro, São Paulo (Franca), Goyáz (Fazenda Esperança, Veadeiros), and Matto Grosso (Cuyabá, Chapada).<sup>1</sup>

1: Brazil (Veadeiros, Goyáz, 1).

### ***Oryzoborus crassirostris crassirostris* (Gmelin). LARGE-BILLED RICE GROSBEAK.**

*Loxia crassirostris* Gmelin, Syst. Nat., 1, (2), p. 862, 1789—based on "Thick-billed Grosbeak" Latham, Gen. Syn. Bds., 2, (1), p. 148, habitat unknown = Cayenne, as suggested by Berlepsch and Hartert, Nov. Zool., 9, p. 25, 1902 (type in coll. of M. Tunstall; descr. of adult male).

*Coccyborus ater* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 678, 1849—British Guiana (type in Berlin Museum; descr. of adult male).

*Sporophila crassirostris* Bonaparte, Consp. Gen. Av., 1, (2), p. 498, 1850—Guiana.

*Spermophila crassirostris* Léotaud, Ois. Trinidad, p. 316, 1866—Trinidad.

*Oryzoborus crassirostris* Cabanis, Mus. Hein., 1, p. 151, Oct., 1851 (crit.); Sclater, Cat. Coll. Amer. Bds., p. 102, 1862—"Trinidad"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 979—Xeberos, Peru; Pelzeln, Orn. Bras., 3, p. 222, 1870—part, Lamalonga and Marabitanas, Rio Negro, Brazil; Salvin, Ibis, 1885, p. 214—Bartica Grove, British Guiana; Sharpe, Cat. Bds. Brit. Mus., 12, p. 79, 1888—British Guiana (George-

<sup>1</sup> Burmeister's Tucumán record requires corroboration, no other naturalist having since met with the species in Argentina.



town, Bartica Grove), Trinidad, Venezuela (San Esteban), Colombia (?Medellin, Bogotá), Brazil (Lamalonga), and Peru (Pebas, Nauta); Chapman, Bull. Amer. Mus. N. H., 6, p. 34, 1894—Princetown, Trinidad; Berlepsch and Hartert, Nov. Zool., 9, p. 25, 1902—Quiribana de Caicara, Rio Orinoco, Venezuela; Hellmayr, l.c., 13, p. 19, 1906—Seelet, Trinidad; Hagmann, Zool. Jahrb. (Syst.), 26, p. 29, 1907—Mexiana, Brazil; Snethlage, Journ. Orn., 55, p. 296, 1907—Mexiana and "Cussary," Brazil; Ihering, Cat. Faun. Braz., 1, p. 369, 1907 (range, excl. of Matto Grosso); Penard, Vog. Guyana, 2, p. 386, 1910—Surinam (habits); Snethlage, Journ. Orn., 61, p. 520, 1913—Mexiana and "Cussary"; idem, Bol. Mus. Goeldi, 8, p. 427, 1914—Mexiana and "Cussary," Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 186, 1916—Caicara, Quiribana de Caicara, and San Feliz River, Orinoco; Chubb, Bds. Brit. Guiana, 2, p. 425, 1921—Great Falls of the Demerara River, Bartica, Georgetown, and Hoorie Creek; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 135, 1922—Trinidad; Roberts, Trop. Agric., 11, p. 99, 1934—Trinidad.

*Oryzoborus melas* Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 979—Pebas, Peru (type in coll. of P. L. Sclater, now in British Museum, examined); idem, l.c., 1869, pp. 252, 253—San Esteban, Carabobo, Venezuela; idem, l.c., 1873, p. 264—Peru (Nauta, Xeberos, Chyavetas, Pebas); Taczanowski, Orn. Pér., 3, p. 8, 1886—same localities.

*Oryzoborus* sp. Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 181—Nauta, Peru.

*Oryzoborus crassirostris crassirostris* Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 119, 1912—Mexiana; Chapman, Bull. Amer. Mus. N. H., 36, p. 556, 1917—Villavicencio, eastern Colombia; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 89, 1918—vicinity of Paramaribo, Surinam.

*Range*.—Island of Trinidad; Venezuela (El Llagual, Caura; Caicara, Quiribana de Caicara, and San Feliz River, Orinoco Valley; San Esteban, Carabobo); the Guianas; northern Brazil, north of the Amazon,<sup>1</sup> west to the eastern foot of the east Colombian Andes (Villavicencio) and northeastern Peru.<sup>2</sup>

<sup>1</sup> I cannot help questioning the locality "Cussary," a place on the south bank of the lower Amazon, inasmuch as we learn from the late Madame Snethlage that collections made at that village and others from near Montalegre were mixed up by the collector, an employee of the Museu Goeldi.

<sup>2</sup> I have not been able to correlate certain variations in dimensions and in size of bill with geographic areas. Males from British Guiana and Surinam are generally smaller; those from Trinidad and the Orinoco Valley are larger, the tail in particular longer, and have much bulkier, heavier bills, some being fully as large-billed as *O. c. maximiliani*; three from the upper Rio Negro combine the massive bill of the latter with the other dimensions of the Guianan birds. A single Bogotá bird is intermediate between the two "extremes," but three from Pebas (*melas*) are not certainly distinguishable from Annai specimens. The white spot at the base of the central rectrices is a purely individual character.

*Material examined*.—British Guiana: Annai, 8.—Dutch Guiana: near Paramaribo, 3.—Brazil, Rio Negro: Lamalonga, 2; Marabitanas, 4.—Trinidad: Seelet, 2.—Venezuela: El Llagual, Caura, 2; Caicara, Orinoco, 1; Quiribana de Caicara, Orinoco, 2.—Colombia: "Bogotá," 1.—Peru: Pebas, 5.

***Oryzoborus crassirostris occidentalis* Scater.<sup>1</sup> WESTERN LARGE-BILLED RICE GROSBEAK.**

*Oryzoborus occidentalis* Scater, Proc. Zool. Soc. Lond., 28, p. 276, 1860—Babahoyo, Ecuador (type in coll. of P. L. Scater, now in British Museum, examined); idem, Cat. Coll. Amer. Bds., p. 102, 1862—Babahoyo and "Bogotá"; Scater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 506—Medellin, Antioquia, Colombia (eggs descr.; spec. examined); Sharpe, Cat. Bds. Brit. Mus., 12, p. 80, 1888—Babahoyo and "Bogotá"; Chapman, Bull. Amer. Mus. N. H., 55, p. 607, 1926—Babahoyo (ex Scater).

*Range*.—Tropical zone of western Ecuador (Babahoyo) and Colombia (Medellin, Antioquia; "Bogotá").

***Oryzoborus crassirostris nuttingi* Ridgway.<sup>2</sup> NUTTING'S RICE GROSBEAK.**

*Oryzoborus nuttingi* Ridgway, Proc. U. S. Nat. Mus., 6, p. 401, Apr. 11, 1884—Los Sábalos, Nicaragua (cotypes in U. S. National Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 348, 1885—Los Sábalos (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 80, 1888—Nicaragua; Richmond, Proc. U. S. Nat. Mus., 16, p. 491, 1893—Greytown and Rio Escondido, Nicaragua; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 604, 1901—eastern Nicaragua (monog.); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 241, 1932—Santa Rosita, Nicaragua.

*Range*.—Tropical zone of eastern Nicaragua (Los Sábalos, Greytown, Rio Escondido, Santa Rosita).

<sup>1</sup> *Oryzoborus crassirostris occidentalis* Scater, in the male sex, differs from the nominate race by somewhat longer wings; black axillaries, broad sooty margins to the basally white under wing coverts; and decidedly smaller white alar speculum. Wing, 74–75, (female) 69.

Two "Bogotá" skins agree in all particulars with the male secured by Louis Fraser at Babahoyo. An adult male from Medellin, Antioquia, combines the size of *occidentalis* (wing, 75) with the white axillaries and under wing coverts of *crassirostris*, while in extent of white alar speculum it is intermediate between the two. For geographical reasons, I am inclined to regard it as an aberrant individual of *occidentalis*, whose range probably comprises most of Colombia west of the eastern Andes (Magdalena and Cauca Valley), whereas the nominate race takes its place at the eastern base of the eastern range (Villavicencio). Such a distribution would account for the occurrence of both races in native "Bogotá" collections. A female from Medellin does not differ in color from the Guianan *crassirostris*.

*Material examined*.—Ecuador: Babahoyo, 1 (male; the type).—Colombia: "Bogotá," 2; Medellin, Antioquia, 2.

<sup>2</sup> *Oryzoborus crassirostris nuttingi* Ridgway: Nearest to *O. c. occidentalis*, but smaller with decidedly larger, more massive bill; male with axillaries and under wing coverts wholly deep black and without trace of the white alar speculum; female much darker throughout, Prout's brown above and deep cinnamon brown below, more tawny abdominally. Wing, 70, (female) 68; tail, 64, (female) 63; bill, 17–18, (female) 16.

Two males and one female from Rio Escondido and Greytown examined in the British Museum.

It seems hardly likely that *Sporophila othello* Bonaparte (Consp. Gen. Av., 1, p. 498, 1850), from "Central America," is the same thing. Unfortunately, the type, once in the Berlin Museum, has disappeared (Stresemann, in litt.).

**Oryzoborus atrirostris** Scater and Salvin.<sup>1</sup> BLACK-BILLED RICE GROSBEAK.

*Oryzoborus atrirostris* Scater and Salvin, Proc. Zool. Soc. Lond., 1878, p. 136  
—Moyobamba, Peru (type in Museum of Zoology, University of Michigan, Ann Arbor); Sharpe, Cat. Bds. Brit. Mus., 12, p. 81, 1888—Moyobamba.

*Range*.—Northern Peru (Moyobamba).

**\*Oryzoborus angolensis angolensis** (Linnaeus). CHESTNUT-BELLIED RICE GROSBEAK.

*Loxia angolensis* Linnaeus, Syst. Nat., 12th ed., 1, p. 303, 1766—based on "The Black Gros-beak" Edwards, Glean. Nat. Hist., 3, p. 296, pl. 352 (right fig.); "Angola," errore= eastern Brazil, as suggested by Hellmayr (Nov. Zool., 13, p. 19, 1906).<sup>2</sup>

*Coccothraustes rufiventris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 13, p. 543, 1817—part, Brazil and Paraguay (ex Azara, No. 121).

*Loxia torrida* (not of Scopoli) Wied, Reise Bras., 2, p. 166, 1821—Barra da Vareda, eastern Minas Geraes.

*Fringilla torrida* Wied, Beitr. Naturg. Bras., 3, (1), p. 567, 1830—eastern Brazil.

*Coccyzoborus magirostris* Swainson, Nat. Hist. & Class. Bds., 2, p. 111, July, 1837—Brazil (new name for *Loxia angolensis* Linnaeus).

*Pitylus torridus* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 85, 1837—Chiquitos, Bolivia; Hartlaub, Syst. Ind. Azara, p. 8, 1847—Paraguay (ex Azara, No. 121).

*Sporophila torrida* Bonaparte, Consp. Gen. Av., 1, (2), p. 499, 1850—Brazil.

*Oryzoborus torridus* Cabanis, Mus. Hein., 1, p. 151, 1851—Rio Grande, Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 239, 1856—part, Brazil; Pelzeln, Orn. Bras., 3, p. 222, 1870—Rio de Janeiro, São Paulo (Ypanemá, Irisanga), Goyáz (Araguaya), and Matto Grosso (Cuyabá, Engenho do Cap Gama); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 225—Rio de Janeiro, Minas Geraes (Lagõa Santa), and São Paulo (Campinas); Cabanis, Journ. Orn., 22, p. 85, 1874—Cantagallo, Rio de Janeiro; Scater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 604—Chiquitos, Bolivia; Forbes, Ibis, 1881, p. 335—near Cabo, Pernambuco, and Parahyba; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 122, 1885—Taquara, Rio Grande do Sul; Berlepsch, Journ. Orn., 35, p. 7, 1887—Lambaré, Paraguay; Sharpe, Cat. Bds. Brit. Mus., 12, p. 77, 1888—part, spec. b-g, Ypanemá, Bahia, and Pernambuco, Brazil; Allen, Bull. Amer. Mus.

<sup>1</sup> *Oryzoborus atrirostris* Scater and Salvin, described from a single male obtained by Professor Steere at Moyobamba, is said to resemble *O. crassirostris* in size, but to be distinguished by larger, black bill and black under wing coverts. We are not acquainted with this bird.

<sup>2</sup> Edwards described the species from a cage bird in the possession of P. C. Webb. Though supposed to be from Angola, it certainly came from eastern Brazil, as we have pointed out (cf. Nov. Zool., 15, p. 32, note, 1908). The designation of Surinam as type locality by Berlepsch and Hartert (Nov. Zool., 9, p. 25, 1902), subsequently corrected by the senior author (l.c., 15, p. 119, 1908), has no foundation whatever.

N. H., 3, p. 368, 1891—Chapada, Matto Grosso; Ihering, *Anuario Est. Rio Grande do Sul*, 16, p. 120, 1899—Mundo Novo, Rio Grande do Sul; idem, *Rev. Mus. Paul.*, 3, p. 159, 1899—Iguapé and São Sebastião, São Paulo; idem, *l.c.*, 4, p. 153, 1900—Cantagallo; Reiser, *Denks. Math.-Naturw. Kl. Akad. Wiss. Wien*, 76, p. 81, 1910—Pernambuco (Beberibé, near Recife) and Piauhý (Rio Taquarussú).

*Oryzoborus specularis* Finsch, *Proc. Zool. Soc. Lond.*, 1870, p. 583 (in text)—Brazil (type in Bremen Museum).<sup>1</sup>

*Oryzoborus torridus* var. *major* Dubois, *Mém. Soc. Zool. France*, 7, p. 402, 1894—habitat unknown (cotypes in Brussels Museum examined).<sup>2</sup>

*Oryzoborus angolensis* Ihering, *Cat. Faun. Braz.*, 1, p. 369, 1907—São Paulo (Piquete, Iguapé, São Sebastião) and Espírito Santo (Rio Doce); Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 437, 1910—Santa Ana, Misiones; Bertoni, *Faun. Parag.*, p. 64, 1914—Alto Paraná, Paraguay; Dabbene, *Bol. Soc. Physis*, 1, p. 354, 1914—Paraguay and Argentina (Misiones); Sztolcman, *Ann. Zool. Mus. Pol. Hist. Nat.*, 5, p. 187, 1926—Salto Guayra, Paraná.

*Oryzoborus angolensis angolensis* Hellmayr, *Nov. Zool.*, 15, p. 32, 1908—Fazenda Esperança, Goyáz; Dabbene, *Anal. Mus. Nac. Buenos Aires*, 23, p. 360, 1912—Mburero and Villa Rica, Paraguay; Holt, *Bull. Amer. Mus. N. H.*, 57, p. 315, 1928—Bemfica, Serra do Itatiaya, Rio de Janeiro; Naumburg, *l.c.*, 60, p. 343, 1930—Matto Grosso (Urucúm, Descalvados, Fazenda do São João, Tapirapoan, Rio Roosevelt); Hellmayr, *Field Mus. Nat. Hist.*, *Zool. Ser.*, 12, p. 293, 1929—Rio Taquarussú, near Santa Philomena, Piauhý; Pinto, *Rev. Mus. Paul.*, 17, (2), p. 791, 1932—Tres Legôas, Matto Grosso; idem, *l.c.*, 19, p. 276, 1935—Rio Gongogy, Bahia.

*Range*.—Eastern and southern Brazil, from southern Piauhý (Santa Philomena), Pernambuco, and Parahyba south to Rio Grande do Sul and Matto Grosso; the adjacent parts of Argentina (Misiones) and Paraguay (Alto Paraná; Mburero; Villa Rica; Lambaré); and eastern Bolivia (Chiquitos and Santa Cruz).<sup>3</sup>

3: Bolivia (Buena Vista, Santa Cruz, 1); Brazil (Rio das Velhas, Minas Geraes, 1; Joinville, Santa Catharina, 1).

<sup>1</sup> While throat and chest, as a rule, are uniform black in adult males, there are sometimes a number of half-concealed spots of whitish or cinnamon and occasionally even a nearly complete rufous band across the throat, as described by Finsch for his *O. specularis*. This is, however, a purely individual variation, since of the specimens so marked two are from Trinidad (Carenage and Caparo), and one from São Paulo, Brazil.

<sup>2</sup> The specimens from Guiana and Trinidad used for comparison being the smaller northern form, Dubois was misled to rename typical *angolensis* of Brazil.

<sup>3</sup> Two adult males from Buena Vista, Bolivia, are typical of the southern race with bulky bills, long wings, and well-marked white alar speculum.

*Additional material examined*.—Brazil: Rio Taquarussú, Santa Philomena, Piauhý, 1; Beberibé, Pernambuco, 2; Bahia, 10; Agua Suja, Minas Geraes, 1; Rio de Janeiro, 1; Ypanemá, São Paulo, 3; Iguapé, São Paulo, 1; Araguaya, Goyáz, 1; Fazenda Esperança, Goyáz, 4; Cuyabá, Matto Grosso, 1; Engenho do Cap Gama, Matto Grosso, 2.—Paraguay: Island near Villa Concepción, 1.—Bolivia: Buena Vista, 1.

**\**Oryzoborus angolensis torridus* (Scopoli).<sup>1</sup> LESSER CHESTNUT-BELLIED RICE GROSBEAK.**

*Loxia torrida* Scopoli, Ann. I Hist. Nat., p. 140, 1769—based on a bird brought alive by Jacquin to the Vienna Zoological Garden; habitat unknown, we suggest north coast of Venezuela.<sup>2</sup>

*Coccothraustes rufiventris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 13, p. 543, 1817—part, Cayenne.

*Loxia nasula* Spix, Av. Spec. Nov. Bras., 2, p. 45, pl. 58, figs. 1 (male), 2 (female), 1825—vicinity of Pará (female cotype in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 679, 1906).

*Coccororus torridus* Tschudi, Unters. Faun. Peru., Aves, p. 223, 1846—Peru.

*Oryzoborus torridus* Scater, Proc. Zool. Soc. Lond., 27, p. 455, 1858—Zamora, eastern Ecuador; Scater and Salvin, l.c., 1866, p. 181—northeastern Peru; idem, l.c., 1867, pp. 572, 750, 977—Brazil (Pará) and Peru (Xeberos, Nauta, Pebas); idem, l.c., 1868, p. 167—Pilar, Bermúdez, Venezuela; Finsch, l.c., 1870, p. 583—Trinidad (crit.); Scater and Salvin, l.c., 1873, pp. 185, 264—Peru (Cosnipata, Xeberos, Nauta, and Pebas); Taczanowski, l.c., 1882, p. 16—Yurimaguas, Peru (crit.); idem, Orn. Pér., 3, p. 7, 1886—Peru (Yurimaguas, Xeberos, Nauta, Pebas); Salvin, Ibis, 1885, p. 214—British Guiana (Bartica Grove, Merumé Mountains,

<sup>1</sup> *Oryzoborus angolensis torridus* (Scopoli): Very similar to *O. a. angolensis*, but slightly smaller, the tail especially shorter, and with decidedly smaller, less bulky bill. Wing (adult males), 56–59, rarely to 61; tail, 52–57; bill, 13–14.

Though not strongly marked, this form is recognizable in series by its smaller bill and generally lesser size. Single individuals are, however, sometimes inseparable. In males from eastern and southern Brazil (typical *angolensis*) the wing ranges from 59 to 64, the tail from 55 to 62, while the bill is as a rule both longer and more massive. The development of the white alar speculum is exceedingly variable within the same locality, and does not afford a useful criterion for separating the two races. For instance, among nine adult males from French Guiana three are without a visible speculum; three have a distinct white spot; and the three remaining examples show some suggestion of white in front of the tips of the primary coverts. The same variation is observable in the series of typical *angolensis* from eastern Brazil, though the percentage of individuals without any visible white on the wings appears to be smaller. Two males from northeastern Peru (*polinskii*), do not differ in any respect from Guianan and Venezuelan examples. They have the same small bills and agree in dimensions (wing, 57, 59; tail, 52, 53), as well as in the tone of the chestnut belly. One has a small white spot on the wing, while in the other the white is wholly concealed by the primary coverts. A female from Moyobamba, like one from Gualaquiza, eastern Ecuador, is somewhat darker (less rufescent) above than any other specimen examined, but they are both in exceedingly fresh plumages, and for the present I am unable to recognize *polinskii* as distinct.

*Additional material examined.*—French Guiana: Cayenne, 7; Roche-Marie, 6.—British Guiana: Merumé Mountains, 2.—Trinidad: Carenage, 3; Caparo, 9; Icacos, 1.—Venezuela: Puerto Cabello, 2; Suapuré, Caura, 3.—Brazil: Pará, 3; Santa Isabel, Rio Preto, Rio Madeira, 3.—Ecuador: Gualaquiza, 1.—Colombia: "Bogotá," 2.—Peru: Iquitos, 2; Pebas, 1.

<sup>2</sup> While the description is indefinite, there seems hardly any doubt as to *Loxia torrida* being referable to the northern form, since Jacquin did not visit Brazil, but is known to have travelled in the West Indies and along the coast of Venezuela and Colombia (Cartagena). If my reasoning be rejected, Spix's term *nasuta* must be accepted in place of *brevirostris*, since birds from Pará are identical with those from Guiana.

Camacusa, Roraima); Sharpe, Cat. Bds. Brit. Mus., 12, p. 77, 1888—part, spec. k-u, Brazil (Pará), Peru (Pebas), British Guiana (Roraima, Bartica Grove, Camacusa), Venezuela (Pilar), Colombia ("Bogotá"), and Ecuador (Sarayacu); Chapman, Bull. Amer. Mus. N. H., 6, p. 34, 1894—Trinidad; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 23, 1899—Zamora, Ecuador; Hagmann, Zool. Jahrb. (Syst.), 26, p. 29, 1907—Mexiana; Snethlage, Journ. Orn., 55, p. 296, 1907—Pará, Mexiana, and Cussary, Brazil; Penard, Vog. Guyana, 2, p. 387, 1910—Surinam (eggs descr.); Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 134, 1922—Harmony Hall and Princetown, Trinidad (nest and eggs).

*Pitylus torridus* Léotaud, Ois. Trinidad, p. 283, 1866—Trinidad.

*Oryzoborus angolensis* (not *Loxia angolensis* Linnaeus) Berlepsch and Hartert, Nov. Zool., 9, p. 25, 1902—Orinoco (Atagracia, Caicara, Quiribana de Caicara) and Caura (Suapuré), Venezuela; Hellmayr, Nov. Zool., 13, p. 19, 1906—Trinidad (Caparo, Seelet, Laventille, Chaguaramas); Ihering, Cat. Faun. Braz., 1, p. 369, 1907—part, Pará; Snethlage, Journ. Orn., 56, p. 499, 1908—Goyana, Rio Tapajóz; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 360, 1908—Carenage, Trinidad; idem, l.c., 2, p. 187, 1916—Orinoco and San Feliz River, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 556, 1917—Andalucia and Villavicencio, Colombia; idem, l.c., 63, p. 118, 1931—Paulo and Arabupu, Roraima.

*Oryzoborus angolensis brevirostris* Berlepsch, Nov. Zool., 15, p. 119, 1908—Cayenne, French Guiana (type in Tring Collection, now in the American Museum of Natural History, New York); Hellmayr, l.c., 17, p. 280, 1910—Santa Isabel, Rio Preto, Rio Madeira (crit.); idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 89, 119, 1912—Pará and Mexiana; Snethlage, Bol. Mus. Goeldi, 8, p. 426, 1914—Pará, Rio Tocantins (Cametá), Cussary, Rio Tapajóz (Boim, Goyana, Bella Vista), Mexiana, and Rio Jamundá (Faro); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 89, 1918—vicinity of Paramaribo and Rijsdijkweg, Surinam; Chapman, Bull. Amer. Mus. N. H., 55, p. 607, 1926—eastern Ecuador; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 61, 1926—Tury-assú, Maranhão; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 173, 1928—Pará; Roberts, Trop. Agric., 11, p. 99, 1934—Trinidad.

*Oryzoborus brevirostris* Chubb, Bds. Brit. Guiana, 2, p. 423, 1921—Ituribisci River, Supenaam, Bartica, Abary River, Roraima, and Camacusa.

*Oryzoborus polinskii* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 230, Dec. 31, 1926—Yurimaguas, Peru (type in Warsaw Museum).

*Range*.—Island of Trinidad; Venezuela; eastern Colombia; the Guianas; Amazonian Brazil, east to northern Maranhão (Tury-assú); eastern Ecuador, and northeastern Peru.

15: British Guiana (Hyde Park, Demerara River, 1; Mazaruni River, 1); Brazil (Bõa Vista, Rio Branco, 1; Itacoatiará, 1); Venezuela (Encontrados, Zulua, 2; Catatumbo River, Zulua, 6; Colón, Tachira, 2); Peru (Moyobamba, 1).

**\**Oryzoborus funereus* Sclater. LESSER RICE GROSBEAK.**

*Oryzoborus funereus* Sclater, Proc. Zool. Soc. Lond., 27, p. 378, 1859—Suchapam, Oaxaca, Mexico (descr. of male; type in coll. of P. L. Sclater, now in British Museum); Sclater and Salvin, Ibis, 1860, p. 398—Choctum, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 102, 1862—Oaxaca; Salvin, Proc. Zool. Soc. Lond., 1867, p. 141—Santa Fé, Veraguas; idem, l.c., 1870, p. 189—Calovévora, Veraguas; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 44, 1878—Guatemala; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 506—Medellin, Colombia (crit., eggs descr.); Nutting, Proc. U. S. Nat. Mus., 6, p. 400, 1884—Los Sábalos, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 349, 1885—Mexico (Suchapam) to Ecuador (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 81, 1888—Mexico (Oaxaca), Guatemala (Choctum), Honduras, Veraguas (Santa Fé), Colombia (Minca, Medellin), and Ecuador (Nanegal, Babahoyo, Balzar); Cherrie, Anal. Inst. Fis.-Geogr. y Mus. Nac. Costa Rica, 4, p. 139, 1893—Boruca, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 491, 1893—Escondido River and Greytown, Nicaragua (habits, nest, and eggs); Hartert, Nov. Zool., 5, p. 484, 1898—Cachaví, Ecuador; Bangs, Proc. Biol. Soc. Wash., 13, p. 102, 1899—Chirua and La Concepción, Santa Marta, Colombia; idem, Auk, 18, p. 32, 1901—San Miguel Island, Bay of Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 605, 1901—Mexico to Colombia and Ecuador (monog.); Bangs, Bull. Mus. Comp. Zool., 39, p. 156, 1903—Ceiba, Honduras; Thayer and Bangs, l.c., 46, p. 159, 1905—San Miguel and Saboga Islands, Bay of Panama; idem, l.c., 46, p. 224, 1906—savanna of Panama; Bangs, Auk, 24, p. 311, 1907—Boruca and Barránca de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 883, 1910—Juan Viñas, Costa Rica; Chapman, Bull. Amer. Mus. N. H., 36, p. 556, 1917—Atrato River, Nóvita, Buenaventura, Barbacoas, and Rio Frio, Colombia (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 275, 1918—Fort Lorenzo, Panama; Todd and Carriker, Ann. Carnegie Mus., 14, p. 506, 1922—Minca, Pueblo Viejo, Chirua, and Heights of Chirua, Colombia (crit., habits); Hallinan, Auk, 41, p. 321, 1924—Gatún, Panama (nest and eggs); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 484, 1927—Motzorongo, Vera Cruz, Mexico; Peters, l.c., 69, p. 465, 1929—Lancetilla, Honduras (crit.); idem, l.c., 71, p. 338, 1931—Bocas del Toro and Almirante, Panama; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 241, 1932—Bluefields, Nicaragua; Stone, l.c., p. 340, 1932—Lancetilla, Honduras; Griscom, Bull. Mus. Comp. Zool., 78, p. 379, 1935—Panama.

*Oryzoborus aethiops* Sclater, Proc. Zool. Soc. Lond., 28, p. 88, 1860—Nanegal, western Ecuador (descr. of male; type in coll. of P. L. Sclater, now in British Museum); idem, l.c., 28, p. 276, 1860—Babahoyo, Ecuador (descr. of female); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 333, 1861—Panama Railroad; Sclater, Cat. Coll. Amer. Bds., p. 102, 1862—Babahoyo, Nanegal, and “New Granada.”

*Oryzoborus salvini* Ridgway, Proc. U. S. Nat. Mus., 6, p. 401 (note), Apr. 11, 1884—Los Sábalos, Nicaragua (type in U. S. National Museum; = female).

*Oryzoborus funereus aethiops* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1098—mouth of Calima, San Juan River, Colombia (crit.); Chapman, Bull.

Amer. Mus. N. H., 55, p. 607, 1926—western Ecuador (Esmeraldas, Bucay, Naránjo, Zaruma, Porto Velo, Rio Pindo).

*Oryzoborus funereus funereus* Griscom, Bull. Amer. Mus. N. H., 64, p. 349, 1932—Guatemala (Finca Chamá, Secanquim); van Tyne, Univ. Mich. Mus. Zool., Misc. Pub., 27, p. 39, 1935—Chuntuqui, Petén, Guatemala; Carriker and de Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 447, 1935—Izabal, Guatemala.

*Range*.—Tropical zone of southeastern Mexico (Motzorongo, Vera Cruz; Suchapam, Oaxaca; Frontera and Teapa, Tabasco), and southwards through Guatemala (depts. of Petén, Alta Vera Paz, and Baja Vera Paz), British Honduras (Manatee Lagoon), Honduras (Ceiba, Lancetilla), Nicaragua (Los Sábalos, Bluefields, Greytown, Rio Escondido), Costa Rica (Térraba Valley and Juan Viñas), and Panama to Colombia<sup>1</sup> and western Ecuador.<sup>2</sup>

9: Mexico (Teapa, Tabasco, 2); Guatemala (unspecified, 1); Costa Rica (Limón, 4); Panama (Colón, 1); Ecuador (San Javier, Esmeraldas, 1).

### Genus VOLATINIA Reichenbach<sup>3</sup>

*Volatinia* Reichenbach, Av. Syst. Nat., pl. 79, June 1, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 78, 1855), *Tanagra jacarina* Linnaeus.

#### \**Volatinia jacarina jacarina* (Linnaeus). BLUE-BLACK GRASSQUIT.

*Tanagra jacarina* Linnaeus, Syst. Nat., 12th ed., 1, p. 314, 1766—based primarily on "Jacarini" Marcgrave, Hist. Nat. Bras., p. 210; northeastern Brazil.

*Fringilla splendens* (not of Vieillot) Wied, Beitr. Naturg. Bras., 3, (1), p. 597, 1830—Rio de Janeiro and Espirito Santo (Aracatiba, Coroaba, etc.).

<sup>1</sup> Though definitely recorded only from the Pacific coast, the Cauca Valley, and the Santa Marta region, this species undoubtedly also ranges into the Magdalena basin, since we have seen an example (adult male) of the usual "Bogotá" preparation.

<sup>2</sup> After studying a more satisfactory series I am led to agree with Peters and Todd that the recognition of a southern race (*aethiops*), advocated by me in an earlier communication, is hardly warranted. The alleged differences in size and in the coloration of the females do not hold at all, and the only point of distinction is the averaging smaller bill of the South American birds.

*Additional material examined*.—Guatemala: Coban, 7.—Costa Rica: Boruca, 4.—Panama: unspecified, 1, 2.—Colombia: "Bogotá," 1; Medellín, 1; mouth of Calima, 1.—Ecuador, Prov. Esmeraldas: San Javier, 3; Pambilár, 2; Ventana, 1; Carondelet, 1; Paramba, Prov. Imbabura, 2.

<sup>3</sup> A possible member of this genus is the unidentified *Sporophila corallina* Bonaparte (Consp. Gen. Av., 1, p. 498, end of 1850) from "Brazil." The description, "Minima; nigerrima; remigibus ex toto nigris; alis intus tectricibusque inferioribus albis; rostro rubro, valde incurvo," does not fit any known species of *Volatinia* or *Sporophila*. The type, though credited by the describer to the Berlin Museum, is not to be found in that collection.



*Emberiza jacarini* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 81, 1837—Santa Cruz de la Sierra, Bolivia (spec. examined).

*Volatinia jacarina*(i) Burmeister, Syst. Uebers. Th. Bras., 3, p. 234, 1856—Laranjeiras, foot of Corcovado, Rio de Janeiro (habits, nest, and eggs); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 597—Cosnipata, Cuzco, Peru; Pelzeln, Orn. Bras., 3, p. 226, 1870—part, Rio de Janeiro, São Paulo (Ypanemá, Itararé), and Goyás, Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 220—Minas Geraes (Lagõa Santa) and Rio de Janeiro (Nova Friburgo); Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 605—Santa Cruz, Consata, and Tilotilo, Bolivia; Forbes, Ibis, 1881, p. 336—from Parahyba and Recife on the coast to Quipapá and Vista Alegre in the interior, northeastern Brazil; Berlepsch, Journ. Orn., 35, p. 8, 1887—Lambaré, Paraguay; Sharpe, Cat. Bds. Brit. Mus., 12, p. 152, 1888—part, spec. f-o, Bolivia (Consata) and Brazil (Bahia, Pernambuco); Allen, Bull. Amer. Mus. N. H., 3, p. 369, 1891—Chapada, Matto Grosso; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 9, 1897—Caiza and San Francisco, Bolivia; Ihering, Rev. Mus. Paul., 3, p. 163, 1899—Piquete and São Sebastião, São Paulo; idem, l.c., 4, p. 154, 1900—Cantagallo and Nova Friburgo, Rio; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 5, 1900—Urucúm, Matto Grosso; Lillo, Anal. Mus. Nac. Buenos Aires, 18, p. 177, 1902—environs of Tucumán; Nicoll, Ibis, 1904, p. 39—Bahia; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—vicinity of Tucumán; Ihering, Cat. Faun. Braz., 1, p. 379, 1907—São Paulo (Ypiranga, Cachoeira, Piquete, Itararé, São Sebastião) and Espirito Santo; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 82, 1910—Pernambuco (Beberibé), Bahia (Bahia; Solidade near Carnahyba, Lagõa do Boqueirão, Rio Grande) and Piahy (Therézina; opposite Ilha São Martin and below União, Rio Parnahyba); Bertoni, Faun. Parag., p. 65, 1914—Alto Paraná, Paraguay; Daguerre, El Hornero, 2, p. 271, 1922—Rosas, Buenos Aires (very rare).

*Volatinia jacarina jacarina* Hellmayr, Nov. Zool., 14, p. 353, 1907—Humaytá, Rio Madeira; idem, l.c., 15, p. 33, 1908—Fazenda Esperança, Goyás; Hartert and Venturi, l.c., 16, p. 176, 1909—Ocampo, Santa Fé, and Tucumán (nest and eggs descr.); Hellmayr, l.c., 17, p. 281, 1910—Humaytá; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 386, 1910—Argentina (Tucumán; Mocoví and Ocampo, Santa Fé; Tucumán; Tigre, Buenos Aires); Friedmann, Bull. Mus. Comp. Zool., 68, p. 232, 1927—Santa Elena, Entre Ríos; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 297, 1929—part, Grajahú and Tranqueira, Maranhão; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 246, 1930—Formosa (Tapi-kiolé and Chaves) and Bolivia (Ipias, Santa Cruz); Naumburg, Bull. Amer. Mus. N. H., 60, p. 349, 1930—Matto Grosso (Urucúm, Tapirapoan) and Rio Madeira (Calama); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 396, 1934—Descalvados, Matto Grosso; Pinto, Rev. Mus. Paul., 19, p. 282, 1935—Bahia (Serra do Palhão, Rio Gongogy, Corupéba, Ilha de Madre de Deus).

*Volatinia jacarini jacarini* Chapman, Bull. U. S. Nat. Mus., 117, p. 109, 1921—Santa Ana, Urubamba, Peru.

*Volatinia jacarina splendens* Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará.

*Range.*—Eastern and central Brazil, from the interior of Piauhy and Maranhão, and Ceará south to São Paulo and Matto Grosso (in the north as far as the banks of the upper Rio Madeira); Paraguay (Lambaré; Alto Paraná); northern Argentina, from Tucumán south through the Chaco to Santa Fé, Entre Ríos (Santa Elena), Corrientes (Rio Guayquiraro), and rarely to Buenos Aires (Tigre, Rosas); eastern Bolivia and (according to Chapman) southeastern Peru (Santa Ana, Urubamba).<sup>1</sup>

17: Brazil (Belem, Prov. Pará, 1; Grajahú, Maranhão, 1; Tranqueira, Maranhão, 1; Juá, near Iguatú, Ceará, 1; Quixada, Ceará, 1; Rio do Peixe, near Queimadas, Bahia, 4; "Bahia," 1; Macaco Secco, near Andarahy, Bahia, 5; Descalvados, Matto Grosso, 2).

**\**Volatinia jacarina splendens* (Vieillot). NORTHERN BLUE-BLACK GRASSQUIT.**

*Fringilla splendens* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 12, p. 173, 1817—based on "Moineau, de Cayenne" Daubenton, Pl. Enl., pl. 224, fig. 3; Cayenne.

*Tiaris jacarina*(i) (not *Tanagra jacarina* Linnaeus) Jardine, Ann. Mag. Nat. Hist., 20, p. 332, 1847—Tobago; Léotaud, Ois. Trinidad, p. 312, 1866—Trinidad.

*Volatinia jacarina*(i) Selater, Proc. Zool. Soc. Lond., 23, p. 160, 1855—"Bogotá"; idem, l.c., 24, p. 304, 1856—Córdoba, Vera Cruz; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 30, 1857—Cayenne; Selater and Salvin, Ibis, 1859, p. 17—Guatemala; Selater, Proc. Zool. Soc. Lond., 27, p. 365, 1859—Jalapa, Vera Cruz; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 332, 1861—Panama Railroad; Cabanis, Journ. Orn., 9, p. 2, 1861—Costa Rica; Selater, Cat. Coll. Amer. Bds., p. 106, 1862—part, spec. a-g, Cayenne, Trinidad, Tobago, Guatemala, and Bogotá; Taylor, Ibis, 1864, p. 83—Trinidad; Selater, Proc. Zool. Soc. Lond., 1864, p. 174—Valley of Mexico; Selater and Salvin, l.c., 1864, p. 352—Lion Hill, Panama; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 177, 1865—David, Chiriquí;

<sup>1</sup> Adult males from Brazil south of the Amazonian region are very constant in having the axillaries, inner under wing coverts, and a large patch at the basal half of the remiges pure white without any black. Exceptions to this rule are exceedingly rare, the most aberrant individual being one from Rio do Peixe, near Queimadas, Bahia, in which the axillars and under wing coverts are almost entirely black as in the northern form. Birds from Bolivia, while slightly verging toward *splendens*, are much nearer to typical *jacarina*.

*Additional material examined.*—Bolivia: Santa Cruz, 4; "La Paz," 1.—Argentina: Tucumán, 2; Mocoví, Santa Fé, 1.—Brazil: opposite Ilha São Martin, Rio Parnahyba, Maranhão, 1; Therezina, Piauhy, 1; Santa Philomena, Piauhy, 1; below União, Rio Parnahyba, Piauhy, 1; Beberibé, Pernambuco, 2; Solidade, Bahia, 1; Bahia, 16; Goyáz, 2; Fazenda Esperança, Goyáz, 6; Humaytá, Rio Madeira, 1; Rio de Janeiro, 6; São Paulo, 3.—Paraguay: Lambaré, 1.

Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 181—Sarayacu, Peru; idem, l.c., 1867, pp. 572, 750—Brazil (Manáos and Guia, Rio Negro) and Peru (Xeberos); idem, l.c., 1868, p. 167—Venezuela (Carúpano and Caracas); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—Costa Rica (San José, Barránca, Grécia); idem, l.c., 9, p. 201, 1869—Mérida, Yucatan; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 552, 1869—Vera Cruz, Mexico; Pelzeln, Orn. Bras., 3, p. 226, 1870—part, Rio Negro, Marabitanas, and Pará, Brazil; Salvin, Proc. Zool. Soc. Lond., 1870, p. 190—Chitrá, Veraguas; Finsch, l.c., 1870, p. 582—Trinidad; Sclater and Salvin, l.c., 1870, p. 836—San Pedro, Honduras; Wyatt, Ibis, 1871, p. 328—Ocaña and Bucaramanga, Colombia; Layard, Ibis, 1873, p. 380—Pará; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 264—Peru (Xeberos and Sarayacu); Lawrence, Mem. Bost. Soc. N. H., 2, p. 276, 1874—Mazatlan and mountains of Colima, western Mexico; idem, Bull. U. S. Nat. Mus., 4, p. 20, 1876—Guichicovi, Oaxaca; Boucard, Proc. Zool. Soc. Lond., 1878, p. 57—San José, Costa Rica; Salvin and Godman, Ibis, 1879, p. 200—San José, Santa Marta, Colombia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 507—Medellin, Colombia (nest and eggs descr.); Taczanowski, l.c., 1880, p. 199—Callacate, Peru; idem, l.c., 1882, p. 17—Chirimoto, Peru; Nutting, Proc. U. S. Nat. Mus., 5, p. 392, 1882—La Palma, Costa Rica; idem, l.c., 6, p. 383, 1883—Sucuyá, Nicaragua; Boucard, Proc. Zool. Soc. Lond., 1883, p. 444—Mérida, Yucatan; Salvin, Ibis, 1885, p. 215—Roraima, British Guiana; Taczanowski, Orn. Pér., 3, p. 25, 1886—Peru (part, Amable Maria, Callacate, Chirimoto); Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 142, 1886—Huehuetlan, Puebla, and Jalapa, Vera Cruz; Wells, l.c., 9, p. 615, 1886—Grenada (habits); Sharpe, Cat. Bds. Brit. Mus., 12, p. 152, 1888—part (excl. of spec. a-o, m', n'); Cory, Bds. W. Ind., p. 290, 1889—Grenada; Salvin, Nov. Zool., 2, p. 7, 1895—part, Malca and Viña, Huamachuco, Peru; Dalmás, Mém. Soc. Zool. France, 13, p. 138, 1900—Tobago; Goeldi, Ibis, 1903, p. 498—Rio Capim, Pará, Brazil; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 183, 1904—French Guiana; Hagmann, Zool. Jahrb. (Syst.), 26, p. 29, 1907—Mexiana, Brazil; Snethlage, Journ. Orn., 55, p. 297, 1907—Mexiana, Marajó, Pará, and Santo Antonio do Prata, Pará; Penard, Vog. Guyana, 2, p. 397, 1910—Surinam; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 132, 1922—Trinidad.

*Volatinia splendens* Salvin, Ibis, 1885, p. 215—Bartica Grove, British Guiana; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 357, 1885—Mexico to Colombia, Venezuela, and Guiana; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—San José, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 10, p. 580, 1887—Trujillo, Honduras; Cory, Auk, 6, p. 218, 1889—Grenada (crit.); idem, Cat. W. Ind. Bds., pp. 113, 151, 1892—Grenada; Cherrie, Auk, 9, p. 27, 1892—San José, Costa Rica; idem, Anal. Inst. Fis.-Geogr. y Mus. Nac. Costa Rica, 4, p. 140, 1893—Boruca, Térraba, and Buenos Aires, Costa Rica; Cory, Auk, 10, p. 220, 1893—Tobago; Richmond, Proc. U. S. Nat. Mus., 16, p. 493, 1893—Rio Escondido, Nicaragua; Robinson, Flying Trip to Tropics, p. 161, 1895—Baranquilla, Colombia; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 5, 1899—

Colón, Panama, and Punta de Sabana, Darien; Chubb, Bds. Brit. Guiana, 2, p. 443, 1921—British Guiana.

*Volatinia jacarina*(i) *splendens* Berlepsch, Journ. Orn., 32, p. 295, 1884—Bucaramanga, Colombia (crit.); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 349—La Merced, Chanchamayo, Peru (crit.); Chapman, Bull. Amer. Mus. N. H., 6, p. 33, 1894—Princetown, Trinidad; idem, l.c., 10, p. 29, 1898—Jalapa, Vera Cruz; Robinson and Richmond, Proc. U. S. Nat. Mus., 18, pp. 677, 685, 1896—Margarita Island (El Valle) and La Guayra, Venezuela; Phelps, Auk, 14, p. 364, 1897—Cumanacoa and San Antonio, Bermúdez, Venezuela; Bangs, Proc. Biol. Soc. Wash., 12, p. 139, 1898—Santa Marta; Allen, Bull. Amer. Mus. N. H., 13, p. 165, 1900—Bonda, Onaca, Masinga Vieja, and Cacagualito, Santa Marta, Colombia; Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 175, 1901—La Guayra, Venezuela; Bangs, Auk, 18, pp. 32, 370, 1901—San Miguel Island and Divalá, Chiriquí, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 526, 1901 (monog., excl. of western Ecuador); Berlepsch and Hartert, Nov. Zool., 9, p. 27, 1902—Altagracia, Caicara, and Ciudad Bolívar, Orinoco, and La Prición, Caura, Venezuela; Allen, Bull. Amer. Mus. N. H., 21, p. 291, 1905—Bonda, Colombia (nest and eggs descr.); Hellmayr, Nov. Zool., 12, p. 278, 1905—Igarapé-Assú, Pará; Clark, Proc. Bost. Soc. N. H., 32, p. 287, 1905—Grenada; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 159, 1905—San Miguel Island, Panama; Cole, l.c., 50, p. 146, 1906—Xbac, Yucatan; Thayer and Bangs, l.c., p. 223, 1906—savanna of Panama; Hellmayr, Nov. Zool., 13, p. 18, 1906—Caparo, Trinidad (crit.); idem, l.c., p. 359, 1906—Santo Antonio do Prata, Pará; Cherrie, Mus. Brookl. Inst., Sci. Bull., 1, p. 188, 1906—Aripo, Trinidad; idem, l.c., p. 360, 1908—Carenage, Trinidad; Bangs, Auk, 24, p. 311, 1907—Boruca and Paso Real, Térraba Valley, Costa Rica; Ihering, Cat. Faun. Braz., 1, p. 379, 1907 (range); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 118, 1907—Guatemala (Los Amates, Gualan, Mazatenango, San José); Berlepsch, Nov. Zool., 15, p. 121, 1908—Cayenne; Lowe, Ibis, 1909, p. 323—Cariaco, Venezuela; Carriker, Ann. Carnegie Mus., 6, p. 892, 1910—Costa Rica (range, habits); Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 16, 88, 119, 1912—Peixe-Boi, Pará localities, and Mexiana, Brazil; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 208, 1913—Cariacuito, Paria, Venezuela; Peters, Auk, 30, p. 380, 1913—Camp Mengel, Quintana Roo; Snethlage, Bol. Mus. Goeldi, 8, p. 431, 1914—Pará, Providencia, Ananindeua, Maguary, Peixe-Boi, Castanhal, Santo Antonio do Prata, Rio Xingú (Victoria), Rio Iriri (Santa Julia), Rio Tocantins (Baião), Rio Tapajóz (Goyana), Mexiana, Marajó (Santa Ana), and Arumanduba, Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 190, 1916—Ciudad Bolívar and Caicara, Orinoco, Venezuela (eggs descr.); Chapman, Bull. Amer. Mus. N. H., 36, p. 561, 1917—Colombia (Dabeiba, Caldas, San Antonio, Barbacoas, Tumaco, Cali, La Manuelita, Miraflores, Barro Blanco, Chicoral, Honda, La Playa, Quetame); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 90, 1918—vicinity of Paramaribo, Lelydorp, and Rijdsijkweg, Surinam; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 275, 1918—Gatún, Panama (nest descr.); Hallinan, Auk, 41, p. 321,

1924—Rio Algarrobo and Balboa, Panama; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 61, 1926—São Bento and Tury-assú, Maranhão; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 173, 1928—Pará; Austin, Bull. Mus. Comp. Zool., 69, p. 389, 1929—Augustine, British Honduras; Roberts, Trop. Agric., 11, p. 99, 1934—Trinidad.

*Volatinia jacarina jacarina* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 297, 1929—part, Tury-assú, Maranhão.

*Volatinia jacarini jacarini* Chapman, Bull. Amer. Mus. N. H., 63, p. 119, 1931—Roraima (Paulo and Glycon Swamp).

*Volatinia jacarini(a) atronitens* Todd, Proc. Biol. Soc. Wash., 33, p. 72, Dec., 1920—Campeche, Campeche, Mexico (type in U. S. National Museum); idem and Carriker, Ann. Carnegie Mus., 14, p. 518, 1922—Bonda, Don Diego, Santa Marta, Cincinnati, La Tigra, Minca, Mamatoco, etc., Santa Marta, Colombia; Griscom, Amer. Mus. Novit., 235, p. 16, 1926—Palmul, Yucatan; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 46, 1927—near Labrados, Sinaloa; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 485, 1927—Presidio and Motzorongo, Vera Cruz; idem, l.c., 68, p. 402, 1928—Tapanatepec, Oaxaca; Griscom, l.c., 69, p. 183, 1929—Cana, Darien; Peters, l.c., p. 466, 1929—Lancetilla, Honduras; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 462, 1930—Chinchao, Huachipa, and Vista Alegre, Huánuco, Peru (crit.); Peters, Bull. Mus. Comp. Zool., 71, p. 338, 1931—Almirante, Panama; Darlington, l.c., p. 420, 1931—Rio Frio, Magdalena, Colombia; Griscom, l.c., 72, p. 371, 1932—Permé and Obaldia, Panama; idem, Bull. Amer. Mus. N. H., 64, p. 352, 1932—Guatemala (many localities); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 340, 1932—Cantarranas, Honduras; Griscom, Bull. Mus. Comp. Zool., 75, p. 415, 1934—Coyucá, Guerrero; idem, l.c., 78, p. 379, 1935—Panama; van Tyne, Univ. Mich. Mus. Zool., Misc. Pub., 27, p. 40, 1935—Uaxactun, Chuntuquf, La Libertad, and Remate, Petén; Guatemala.

*Range*.—Tropical zone of Central America, from southern Sinaloa and Vera Cruz, Mexico, southward to Panama; Colombia; Venezuela; the islands of Trinidad, Tobago, and Grenada, Lesser Antilles; the Guianas, and the whole of the Amazonian region to eastern Peru and the coast districts of Maranhão, Brazil.<sup>1</sup>

<sup>1</sup> It appears to me impracticable to separate the inhabitants of Central America from those of Guiana (*splendens*). Todd proposed for them the name *V. j. atronitens*, claiming that Guianan birds (*splendens*) were the same as typical *jacarina*. With this statement I am unable to agree, and do not see any necessity for changing the nomenclature of the two eastern races. Fifteen males from French Guiana, it is true, show considerable variation in the color of the axillars and under wing coverts. In five they are wholly black; in five others the prevailing color is likewise black, though a few of the shortest axillaries (next to the body) as well as the tips of some of the longer under wing coverts are white as in birds from Manáos and the upper Rio Negro (Marabitanas) and in numerous individuals from Central America; one adult male has the apical portions of the longest under wing coverts white, and the extreme base of the inner webs of the inner primaries is slightly vermiculated with white; in the five remaining specimens the axillaries are for the greater part white, though more or less edged with black apically, and the inner remiges are narrowly edged or vermiculated with white at the base of the inner webs. Not one of these examples, however, has the white under the wing so solid as is the case, with very few exceptions, in a long

95: Mexico (Colima, 11; Cuernavaca, Morelos, 1; Teapa, Tabasco, 1); Guatemala (San José, 2; Salamá, Baja Vera Paz, 3; Los Amates, Izabal, 3; Gualan, Zacapa, 1; Lake Amatitlan, 1; Mazatenango, 1); Nicaragua (San Gerónimo, Chinandega, 10); Costa Rica (Miravalles, 1; Las Cañas, 1); Panama (Colón, 6); Lesser Antilles (Tobago, 4; Grenada, 3); Colombia (Bogotá, 6; 10 miles north of San José de Cucuta, Santander del Norte, 3; Rio Cauquetá, 1; Chicoral, Coello River, Tolima, 1; Cali, Valle de Cauca, 1); Venezuela (Caracas, 6; Maracay, Aragua, 5; Encontrados, Zulia, 2; Cocollar, Sucre, 1; Colón, Tachira, 1); British Guiana (Georgetown, 1); Brazil (Tury-assú, Maranhão, 1; Manáos, 6; Itacoatiará, 1; Porto Velo, 1); Peru (Chinchao, 6; Huachipa, 1; Vista Alegre, 1; San Ramón, Junín, 1).

**\**Volatinia jacarina peruviansis* (Peale).<sup>1</sup> PACIFIC BLUE-BLACK GRASSQUIT.**

*Geospiza peruviansis* Peale, U. S. Expl. Exp., 8, p. 115, 1848—between Callao and Lima, Peru (cotypes in U. S. National Museum).

*Volatinia jacarini pacifica* Chapman, Amer. Mus. Novit., 143, p. 11, Nov. 6, 1924—Trujillo, Dept. Libertad, Peru (type in the American Museum of Natural History); idem, Bull. Amer. Mus. N. H., 55, p. 614, 1926—

series from eastern and southern Brazil, and the white margin at the base of the remiges is never more than suggested, while in typical *jacarina* the whole basal half of the inner webs of all the remiges is white, often reaching to the shaft, and forms a broad continuous band across the under surface of the wing. The same variation obtains in specimens from the Pará region, though the trend towards *jacarina* is perhaps even more pronounced. On the other hand, every stage as described above for French Guianan birds also occurs along the north coast of Venezuela, in Colombia, and in Central America, although specimens without any white under the wings are far in preponderance. To sum up, birds from the Guianas and Lower Amazonia, while intermediate to the nominate race, are as a whole much nearer to the black-winged form, and may well go under Vieillot's term *splendens*. Males from Mexico and Costa Rica average slightly smaller and more purplish than those from South America, but the divergencies are far from constant, and hardly warrant the recognition of an additional race (*atronitens*). Van Rossem (Bull. Brit. Orn. Cl., 58, p. 130, July 13, 1938) separates the inhabitants of western Mexico (Sinaloa to Guerrero) as *V. j. diluta* (type from San Blas, Nayarit), their character being the duller, less buffy brown edging in winter plumage.

Birds from eastern Peru, as has been correctly explained by Zimmer, connect the coastal form (*peruviansis*) with *splendens*, and some even closely approach typical *jacarina*.

One hundred and fifty-seven specimens representing nearly every country between Mexico and the southern boundary of the range examined.

<sup>1</sup> *Volatinia jacarina peruviansis* (Peale): Very similar to *V. j. splendens*, but males with generally more white on the axillars and under wing coverts, and the remiges dusky brown rather than black. Besides, there is another difference in that males obviously do not acquire the adult plumage until after the second year.

Birds from northwestern Ecuador form the passage to *V. j. splendens*, but they all have the brownish wings of *peruviansis*.

*Additional material examined*.—Ecuador: Paramba, Prov. Imbabura, 12; Guayaquil, 4.—Peru: Eten, Lambayeque, 3; Caraz, Ancachs, 2; Lima, 6.

western Ecuador (Esmeraldas; Chone, Manaví; Daule; Guayaquil; Chongoncito; Duran; Bucay; junction Changan and Chiguancay; Cumbaya; Puna Island; Santa Rosa; Porto Velo; Rio Pindo).

*Volatinia splendens* (not *Fringilla splendens* Vieillot) Sclater, Proc. Zool. Soc. Lond., 27, p. 140, 1859—Pallatanga, Ecuador; idem, l.c., 28, p. 275, 1860—Babahoyo, Ecuador.

*Volatinia jacarina*(i) *splendens* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 551—Guayaquil, Ecuador; idem, l.c., 1884, p. 294—El Placer, Ecuador; idem, l.c., 1885, p. 84—Yaguachi, Ecuador; Hartert, Nov. Zool., 5, p. 484, 1898—Paramba and Ibarra (Prov. Imbabura), Ecuador; Bangs and Noble, Auk, 35, p. 462, 1918—Bellavista, Peru.

*Volatinia jacarina*(i) (not *Tanagra jacarina* Linnaeus) Sclater, Cat. Coll. Amer. Bds., p. 106, 1862—part, spec. h, Pallatanga; idem, Proc. Zool. Soc. Lond., 1866, p. 97—around Lima; idem and Salvin, l.c., 1868, p. 173—Tambo Valley, Arequipa, Peru; Taczanowski, l.c., 1874, p. 520—Lima; Salvin, l.c., 1883, p. 421—Callao; Taczanowski, Orn. Pér., 3, p. 25, 1886—part, Lima, Peru; Sharpe, Cat. Bds. Brit. Mus., 12, p. 152, 1888—part, spec. a-e, m', n', Peru (Lima, Tambo Valley, Callao) and Ecuador (Pallatanga, Guayaquil); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 376—Lima; Salvin, Nov. Zool., 2, p. 7, 1895—part, Tembladera, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 25, 1899—La Concepción, Vines, and Balzar, Ecuador; Ménégau, Rev. Franç. d'Orn., 2, p. 9, 1911—Chuquibamba, Otuzco, Peru.

*Volatinia jacarina peruviansis* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 462, 1929—Chosica, Vitarte, and Matucana, Dept. Lima, Peru (crit.); Hellmayr, l.c., 19, p. 52, 1932—Chacalluta, Tarapacá, Chile.

*Range*.—Tropical zone of western Ecuador and western Peru (east to the upper Marañón Valley) south to Tarapacá, on the Chilean boundary.

13: Ecuador (Puente de Chimbo, 4); Peru (Chosica, 5; Vitarte, 1; Matucana, 2); Chile (Chacalluta, Tarapacá, 1).

### Genus PINICOLA Vieillot

*Pinicola* Vieillot, Hist. Nat. Ois. Amér. Sept., 1, p. iv, pl. 1, fig. 13, "1807"—type, by monotypy, *Pinicola rubra* Vieillot=*Loxia enucleator* Linnaeus.<sup>1</sup>

*Strotilophaga* Vieillot, Anal. Nouv. Orn. Élém., p. 29, April, 1816—type, by monotypy, "Dur-Bec" Buffon=*Loxia leucura* P. L. S. Müller.

*Corythus* Cuvier, Règne Anim., 1, p. 391, "1817" [=Dec. 7, 1816]—type, by monotypy, *Loxia enucleator* Linnaeus.

*Densirostra* Wood, The Analyst, 3, pp. 32, 204, 1835—type, *Loxia enucleator* Linnaeus.<sup>2</sup>

*Enucleator* Brehm, Vollst. Vogelfang, p. 89, 1855—new name for *Corythus* Cuvier.

<sup>1</sup> While the bill characters of text and plate are undoubtedly those of the Pine Grosbeak, the identification of the race that served as a basis is, of course, impossible.

<sup>2</sup> Not seen by me.

**\**Pinicola enucleator leucura* (P. L. S. Müller). GREATER CANADIAN PINE GROSBEAK.**

*Loxia leucura* P. L. S. Müller,<sup>1</sup> *Natursyst.*, Suppl., p. 150, 1776—based on “Gros-Bec, du Canada” Daubenton, *Pl. Enl.*, pl. 135, fig. 1; Canada.

*Pinicola canadensis* Cabanis, *Mus. Hein.*, 1, p. 167, Oct., 1851—based on “Le Gros-Bec de Canada” Brisson, *Orn.*, 3, p. 250, pl. 12, fig. 3; Canada (type in Réaumur Collection).

(?) *Corythus splendens* Brehm, *Vollst. Vogelfang*, p. 89, 1855—“Nordamerika”; idem, *Isis*, 1840, p. 590—North America (type in coll. of C. L. Brehm, subsequently in Rothschild Collection [cf. Hartert, *Nov. Zool.*, 25, p. 11, 1918], now in the American Museum of Natural History, New York).<sup>2</sup>

*Pinicola enucleator canadensis* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 1, p. 60, 1901 (monog., full bibliog.; in part).

*Pinicola enucleator leucura* Richmond, *Auk*, 19, p. 85, 1902 (nomencl.).

*Pinicola enucleator leucura* Griscom, *Proc. New Engl. Zool. Cl.*, 14, p. 12, 1934 (crit., range).

*Range*.—Breeds in northern North America from Northwest Territories and northern Alberta east to Ungava and northern Labrador; south in winter to the northern United States from Nebraska to western Pennsylvania, casually to Kentucky and more rarely to New England (Griscom, l.c.).

7: Labrador (Anatalok Bay, 2; Bowdoin Harbor, 2); Wisconsin (Beaver Dam, 1); Illinois (Beach, Lake County, 1; Chicago, 1).

**\**Pinicola enucleator eschatosus* Oberholser.<sup>3</sup> LESSER CANADIAN PINE GROSBEAK.**

*Pinicola enucleator eschatosus* Oberholser, *Proc. Biol. Soc. Wash.*, 27, p. 51, Mar. 20, 1914—Harry's River, Newfoundland (type in coll. of L. C. Sanford, now in the American Museum of Natural History, New York); Noble, *Bull. Mus. Comp. Zool.*, 62, p. 556, 1919—Newfoundland (crit.); Griscom, *Proc. New Engl. Zool. Cl.*, 14, p. 12, 1934 (crit., range); van Tyne, *Auk*, 51, p. 529, 1934—Ohio and Michigan (in winter).

*Pinicola enucleator canadensis* (not of Cabanis) Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 1, p. 60, 1901 (in part).

*Range*.—Breeds from central Labrador and Newfoundland south to the Gulf of St. Lawrence region, and more locally throughout

<sup>1</sup> Müller's description is misleading, since the sentence “der Bürzel aber ist weiss” actually refers to the vent and lower tail coverts.

<sup>2</sup> Griscom (l.c., p. 11) restricts *leucura*, *canadensis*, and *splendens* to the larger heavy-billed form, and while this action with respect to the first two names, in the absence of types, may be regarded as final, the proper disposition of *C. splendens* depends on a critical study of the original example, now in the collection of the American Museum of Natural History, New York.

<sup>3</sup> *Pinicola enucleator eschatosus* Oberholser: Similar to *P. e. leucura*, but smaller with shorter, basally narrower bill; coloration slightly darker gray; adult males always more scarlet, less rosy.



the Maritime Provinces of Canada to the mountains of northern Maine and New Hampshire; south in winter to New Jersey, New York, District of Columbia, Ohio, Michigan, and Wisconsin.

17: Maine (Lincoln, 3; Brewer, 4; Buckfield, 2); Massachusetts (Burlington, 2; Cambridge, 1; Monson, 3); Wisconsin (Beaver Dam, 1); Michigan (Kalamazoo, 1).

***Pinicola enucleator kamtschatkensis* (Dybowski). KAMT-SCHATKA PINE GROSBEAK.**

*Corythus enucleator kamtschathensis* [sic]<sup>1</sup> Dybowski, Bull. Soc. Zool. France, **8**, p. 367, 1883—based on "*Corythus enucleator* L.?" Dybowski, op. cit., **7**, p. 394, 1882; Kamtschatka (type, from Machoura, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., **6**, p. 173, 1927).

*Pinicola enucleator kamtschathensis* Riley, Auk, **34**, p. 210, 1917—St. George Island, Pribilof Islands, Alaska (October, 1915).

*Pinicola leucura kamtschathensis* Preble and McAtee, N. Amer. F., **46**, p. 88, 1923—St. George Island, Pribilof Islands.

*Pinicola enucleator kamtschatkensis* Hartert, Nov. Zool., **27**, p. 157, 1920—Bering or Copper Island(?).

*Range*.—Breeds in Kamchatka. Accidental on St. George Island, Pribilof Islands, Alaska (October, 1915).

**\**Pinicola enucleator alascensis* Ridgway. ALASKA PINE GROSBEAK.**

*Pinicola enucleator alascensis* Ridgway, Auk, **15**, p. 319, October, 1898—Nushagak, Alaska (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., **50**, Part 1, p. 63, 1901 (monog., full bibliog.).

(?) *Pinicola enucleator flammula* (not of Homeyer) Swarth, Univ. Calif. Pub. Zool., **24**, p. 231, 1922—upper Stikine River, British Columbia.

*Range*.—Breeds in northwestern North America from northwestern Alaska and northwestern Mackenzie to northern British Columbia; winters south to British Columbia, Washington, Montana (Bitter Root Valley), southern North Dakota, and northwestern Minnesota.

3: British Columbia (Okanagan, 3).

***Pinicola enucleator flammula* Homeyer. KODIAK PINE GROSBEAK.**

*Pinicola flammula* Homeyer, Journ. Orn., **28**, p. 156, April, 1880—"Nordwestamerika" (type in coll. of E. F. von Homeyer, now in Brunswick Museum).<sup>2</sup>

<sup>1</sup> An obvious typographical error for *kamtschatkensis*.

<sup>2</sup> Homeyer's description seems to fit the large-billed form of the Alaskan coast, though the absence of bill-measurement renders identification rather difficult. Unfortunately, my efforts to obtain the type on loan were unsuccessful.

*Pinicola enucleator kodiaka* Ridgway, Man. N. Amer. Bds., p. 388, 1887—Kodiak to Sitka, Alaska (type, from Kodiak Island, in U. S. National Museum).

*Pinicola enucleator* (not *Loxia enucleator* Linnaeus) Finsch, Abhandl. Naturw. Ver. Bremen, 3, p. 54, 1872—Kodiak Island (crit.).

*Pinicola enucleator flammula* Stejneger, Auk, 1, p. 149 (footnote), 1884—Kodiak (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 64, 1901—Kodiak Island and Alaskan coast to Sitka (monog., full bibliog.); Grinnell, Condor, 3, p. 21, 1901—Kodiak; idem, Univ. Calif. Pub. Zool., 5, p. 222, 1909—Chichagof Island and Glacier Bay, Alaska; idem, l.c., 5, p. 395, 1910—Prince William Sound region, Alaska (Port Nell Juan; Montague, Latouche, Knight, and Chenege Islands; crit.); Swarth, l.c., 7, p. 81, 1911—Bradfield Canal, Sitka district, Alaska; idem, l.c., 10, p. 52, 1912—Vancouver Island; idem, Pacif. Coast Avif., 22, p. 47, 1934—Sitkalidak Island, Alaska.

*Range.*—Breeds on Kodiak Island and in the coast region of Alaska south at least to Sitka; winters along the coast south to British Columbia.

***Pinicola enucleator carlottae* Brooks.<sup>1</sup> QUEEN CHARLOTTE PINE GROSBEAK.**

*Pinicola enucleator carlottae* Brooks, Condor, 24, p. 86, June 10, 1922—Massett, Graham Island, Queen Charlotte Islands (type in coll. of Allan Brooks).

*Pinicola enucleator flammula* (not of Homeyer) Osgood, N. Amer. F., 21, p. 47, 1901—Cumsheewa Inlet (one imm. male).

*Range.*—Queen Charlotte Islands, British Columbia.

**\**Pinicola enucleator montana* Ridgway. ROCKY MOUNTAIN PINE GROSBEAK.**

*Pinicola enucleator montana* Ridgway, Auk, 15, p. 319, October, 1898—Bear Creek, Gallatin County, Montana (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 66, 1901 (monog., full bibliog.).

*Range.*—Summits of the Rocky Mountains of North America from west-central Alberta, southeastern British Columbia, Idaho, and Montana to northern New Mexico; in winter to northwestern Nebraska.<sup>2</sup>

6: Alberta (Red Deer, 2); Montana (Townsend, 2); Colorado (Williams Range, Routt County, 1; Webster, 1).

<sup>1</sup> *Pinicola enucleator carlottae* Brooks: Smallest and darkest of all the American races; tail much shorter than in the other forms; red of males deeper and more scarlet (less of a carmine); yellow of females and old males darker and more or less suffusing the entire plumage, except the center of belly, lower tail coverts, and under wings and tail. Wing, 109, (female) 108; tail, 80–82; bill, 14½, (female) 13½; depth at base, 10½. (Brooks, l.c.)

<sup>2</sup> An additional race, *P. e. jacoti* Jenks (Condor, 40, p. 29, Jan., 1938), related to *P. e. montana*, but with stubbier bill and of darker coloration has lately been described from the White Mountains in central-eastern Arizona (type, from Phelps Ranger Station, northeast base of Baldy Peak, Apache County, in coll. of R. Jenks).

**\**Pinicola enucleator californica* Price. CALIFORNIA PINE GROSBEAK.**

*Pinicola enucleator californica* Price, Auk, 14, p. 182, April, 1897—Pyramid Peak, near Echo, Eldorado County, California (type in coll. of Stanford University; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 304, 1932); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 65, 1901 (monog., full bibliog.).

*Pinicola californica* Ray, Condor, 14, pp. 157–187, 1912 (range; nest and eggs descr.).

**Range.**—Boreal zone of the Sierra Nevada from near Gold Lake, Plumas County, to Mammoth Pass, Mono County, California.

1: California (Blue Canyon, Placer County, 1).

**Genus LEUCOSTICTE Swainson**

*Leucosticte* Swainson, in Swainson and Richardson, Faun. Bor.-Amer., 2, "1831," p. 265, pub. Feb., 1832—type, by monotypy, *Linaria (Leucosticte) tephrocotis* Swainson.

**\**Leucosticte tephrocotis griseonucha* (Brandt). ALEUTIAN ROSY FINCH.**

*Fringilla (Linaria) griseonucha* Brandt, Bull. Sci. Acad. Imp. Sci. St. Pétersb., 10, Nos. 14–16, col. 252, pub. May 15, 1842—"insulae Aleuticae" = Aleutian Islands, Alaska (type in Leningrad Museum).<sup>1</sup>

*Leucosticte griseogenys* Gould, Proc. Zool. Soc. Lond., 11, p. 104, Dec., 1843—no locality given (type, now in British Museum, examined); idem, in Zool. Voy. Sulphur, p. 42, pl. 23, 1844—"Russian America" = Sitka (cf. Zool. Sulphur, p. 49).

*Montifringilla pustulata* Cabanis, in Ersch and Gruber, Allg. Encycl. Wiss. und Künste, 1st sect., 50, p. 214, 1849—"von den kurilischen Inseln," errore (type in Berlin Museum).

*Montifringilla speciosa* Finsch, Abhandl. Naturw. Ver. Bremen, 3, p. 60, Feb., 1872—Unalaska Island (type in Bremen Museum).

*Leucosticte kadiaka* McGregor, Condor, 3, p. 8, Jan., 1901—Karluk, Kodiak Island, Alaska (type in coll. of R. C. McGregor, now in Dwight Collection, in the American Museum of Natural History, New York).

*Leucosticte griseonucha maxima* Brooks, Bull. Mus. Comp. Zool., 59, p. 405, Sept., 1915—Copper Island, Commander Islands (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Montifringilla griseinucha* Sharpe, Cat. Bds. Brit. Mus., 12, p. 275, 1888—Kodiak and St. George Islands (monog.).

*Leucosticte tephrocotis kadiaka* Grinnell, Condor, 3, p. 21, 1901—Kodiak (crit.).

<sup>1</sup> Brandt's name is by no means merely based on *Passer arclous* var.  $\gamma$  Pallas (Zoogr. Rosso-Asiat., 2, p. 23), as given by Hartert and Ridgway. The author states that there are four specimens in the Petersburg Museum, including two young ones secured by Kittlitz on Unalaska Island.

*Leucosticte tephrocotis griseonucha* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 72, 1901 (monog., full bibliog.).

*Leucosticte griseonucha griseonucha* Brooks, Bull. Mus. Comp. Zool., 59, p. 405, 1915—Semidi Islands.

*Leucosticte griseonucha* Bent, Smiths. Misc. Coll., 56, No. 32, pp. 19, 28, 1912—Kiska Island, Aleutians, and St. Paul Island, Bering Sea; Hersey, l.c., 66, No. 2, p. 29, 1916—Unalaska and Amaknak Islands; Hanna, Condor, 24, p. 88, 1922—St. George and St. Paul Islands (habits, nest and eggs descr.); Preble and McAtee, N. Amer. F., 46, p. 88, 1923—Pribilof Islands (St. George, St. Paul, and Otter); Laing, Victoria Mem. Mus., Bull., 40, p. 36, 1925—Unalaska, Atka, and Attu Islands, Alaska; Swarth, Pacif. Coast Avif., 22, p. 47, 1934—Akutan, Unalaska, and Nunivak Islands, Alaska.

*Montifringilla tephrocotis maxima* Hartert, Nov. Zool., 27, p. 156, 1920—Copper Island (crit.).

**Range.**—Islands of Bering Sea (St. Matthew, Commander, Nunivak, Pribilof) and the Aleutian chain, western part of the Alaska Peninsula, and the Semidi and Shumagin Islands; winters east to Kodiak Island.<sup>1</sup>

8: Alaska (Dutch Harbor, Unalaska Island, 1; St. Paul Island, 2; St. George Island, 3; unspecified, 2).

**\**Leucosticte tephrocotis littoralis* Baird. HEPBURN'S ROSY FINCH.**

*Leucosticte littoralis* Baird, Trans. Chicago Acad. Sci., 1, p. 318, pl. 28, fig. 1, 1869—Sitka, and Port Simpson, British Columbia (type, from Port Simpson, in U. S. National Museum); idem, in Cooper, Orn. Calif., p. 162, 1870—same localities.

*Leucosticte campestris* Baird, in Cooper, Orn. Calif., p. 163, 1870—Denver, Colorado (type in U. S. National Museum).

*Montifringilla littoralis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 277, 1888 (monog.).

*Leucosticte tephrocotis littoralis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 71, 1901 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 5, p. 226, 1909—Chichagof Island, Alaska; idem, l.c., 5, p. 397, 1910—Prince William Sound region, Alaska; Swarth, l.c., 24, p. 235, 1922—Doch-da-on Creek, Stikine region, British Columbia (breeding; food, meas.); idem, l.c., 24, p. 350, 1924—Ninemile Mountain, Skeena region, British Columbia; Brooks and Swarth, Pacif. Coast Avif., 17, p. 88, 1925—British Columbia; Racey, Auk, 43, p. 323, 1926—Alta Lake Region, British

<sup>1</sup> While there can be no question as to its being conspecific with *L. tephrocotis*, I am not quite certain that the Aleutian Rosy Finch should not be subdivided. Birds from Copper Island (*maxima*), of which I have compared a considerable series in the Tring Collection, average slightly larger (wing of males, 117–123) than others from Unalaska. Two from St. George, Pribilof, are seemingly intermediate, having wings of 117 and 121, respectively. It is quite possible that more adequate material may show the inhabitants of Nunivak, the Pribilofs, and the Matthew group to constitute a recognizable larger race entitled to the name *maxima*, and typical *griseonucha* to be restricted to the Aleutian Islands and the adjacent regions.

Columbia; Bailey, l.c., 44, p. 357, 1927—Muir Inlet (Glacier Bay) and Mt. Robert, Alaska; Leffingwell and Leffingwell, Condor, 33, p. 140, 1931—Clarkston, Washington (habits, food, call-notes, summer and winter ranges).

*Range*.—Mountains of northwestern North America, from the Alaska Peninsula east and south to central Oregon; winters along the Pacific coast from Kodiak Island to Vancouver Island, and south to Oregon, Nevada, Idaho, Montana, Wyoming, Utah, and Colorado; accidental in Minnesota.

7: Washington (Pullman, 1); Oregon (Camp Harney, 2; Sparta, 1); Montana (Fort Keogh, 1); Wyoming (Fort Washakie, 1); Colorado (Fremont County, 1).

**\**Leucosticte tephrocotis tephrocotis* (Swainson). GRAY-CROWNED ROSY FINCH.**

*Linaria (Leucosticte) tephrocotis* Swainson, in Swainson and Richardson, Faun. Bor.-Amer., 2, "1831," p. 265, pl. 50, pub. Feb., 1932—on the Saskatchewan [=near Carlton House, Saskatchewan] (type now in the Swainson Collection, University Museum, Cambridge, Eng.).

*Montifringilla tephrocotis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 273, 1888 (monog.).

*Leucosticte tephrocotis tephrocotis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 68, 1901—part, excl. of California.

*Range*.—Breeds in the Alpine zone of the Rocky Mountains from central-eastern Alaska, central Yukon, and western Alberta south to northwestern Montana; in winter and in migration west to the Cascade Range, east to the Saskatchewan plains and Manitoba, north to Great Slave Lake, and south to Utah, Colorado, and western Nebraska.

27: Alberta (National Park, 2); Washington (Pullman, 1); Montana (Fort Keogh, 5); Wyoming (Douglas, 5; Fort Washakie, 2; Hat Creek, 7); Colorado (Boulder, 2; Webster, 1; Colorado Springs, 2).

**\**Leucosticte tephrocotis dawsoni* Grinnell.<sup>1</sup> SIERRA NEVADA ROSY FINCH.**

*Leucosticte tephrocotis dawsoni* Grinnell, Condor, 15, p. 77, March 25, 1913—Whitney Meadows, Sierra Nevada, Tulare County, California (type in Museum of Vertebrate Zoology, Berkeley); Dawson, Journ. Mus. Comp. Zool., 2, pp. 8-26, 1922—Sierra Nevada (nest and eggs descr.).

<sup>1</sup>*Leucosticte tephrocotis dawsoni* Grinnell: Similar to *L. t. tephrocotis*, but slightly smaller, especially the bill; general coloration distinctly grayer, less brownish, notably in juvenile plumage. Wing, 101-107, (female) 98-102; tail, 67½-74, (female) 62-68; bill, 10½-11½.

*Leucosticte tephrocotis tephrocotis* (not of Swainson) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 68, 1901—part, Sierra Nevada, California.

*Leucosticte tephrocotis* Ray, Auk, 20, p. 187, 1903—Pyramid Peak, California.

*Range*.—Alpine and Hudsonian zones of the Sierra Nevada, from Pyramid Peak, Eldorado County, south to Cottonwood Pass, Tulare County, California.

4: California (Pyramid Peak, 2; Fresno County, 2).

**\**Leucosticte tephrocotis atrata* Ridgway.<sup>1</sup> BLACK ROSY FINCH.**

*Leucosticte atrata* Ridgway, Amer. Sportsman, 4, p. 241, July 18, 1874—Canyon City, Colorado (type in coll. of C. E. Aiken, now in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 75, 1901 (monog., full bibliog.); Miller, Condor, 27, pp. 1–7, 1925—Wapiti Range, Wyoming (nest and eggs descr.).

*Range*.—Breeds in the Rocky Mountains, in states of Idaho (Salmon River Mountains), Utah (Uinta Mountains), and western Wyoming (Wapiti Range, Wind River, Teton, and Absaroka Mountains); winters south to southern Utah, Colorado, New Mexico, southeastern Wyoming, Montana, and west (casually?) to Mono County, California.

2: Colorado (Colorado Springs, 2).

**\**Leucosticte tephrocotis australis* Ridgway.<sup>1</sup> BROWN-CAPPED ROSY FINCH.**

*Leucosticte tephrocotis* var. *australis* Ridgway, Bull. Essex Inst., 5, No. 11, p. 189, Nov., 1873; i.e., No. 12, p. 197, Dec., 1873—Mount Lincoln, Colorado (cotypes in coll. of J. A. Allen, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 379, 1930).

*Montifringilla australis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 275, 1888—Colorado (Mount Lincoln, Colorado Springs, South Park).

*Leucosticte australis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 77, 1901 (monog., full bibliog.); Henshaw, Auk, 22, p. 315, 1905—Summit Peak, Colorado; Cooke, Auk, 26, p. 416, 1909—La Plata Mountains, Colorado; Warren, Auk, 27, p. 148, 1910—Chaffee County, Colorado; Lincoln, Auk, 33, p. 41, pl. 2, 1916—Mount Bross, Colorado (nest and eggs descr.).

*Range*.—Breeds in the Alpine zone of the Rocky Mountains of Colorado and probably northern New Mexico; winters mostly in the valleys of Colorado and New Mexico.

3: Colorado (Canyon City, 2; Silverton, 1).

<sup>1</sup>*Leucosticte tephrocotis atrata* Ridgway and *L. t. australis* Ridgway, though strongly marked, are clearly geographic races of *L. tephrocotis*.

Genus **CHLORIS** Cuvier

*Chloris* Cuvier, *Leç. d'Anat. Comp.*, 1, tab. 2, 1800—type, by monotypy and tautonymy, *Loxia chloris* Linnaeus apud Cuvier, *Tabl. Elém. Hist. Nat. Anim.*, p. 212, 1798 (*Opinion Int. Comm. Nomencl.*, No. 39).

**Chloris chloris** (Linnaeus) subsp.<sup>1</sup> GREENFINCH.

*Loxia chloris* Linnaeus, *Syst. Nat.*, 10th ed., 1, p. 174, 1758—"in Europa"  
= Sweden (ex Fauna Suecica).

*Chloris chloris* Tremoleras, *El Hornero*, 5, p. 390, 1934—Rio Migueleta,  
Montevideo, Uruguay.

*Range*.—Northern and central Europe; introduced and acclimatized in Uruguay (vicinity of Montevideo).

Genus **CARDUELIS** Brisson

*Carduelis* Brisson, *Orn.*, 1, p. 36; l.c., 3, p. 53, 1760—type, by tautonymy,  
"Carduelis" Brisson = *Fringilla carduelis* Linnaeus.

**Carduelis carduelis britannica** (Hartert). BRITISH GOLDFINCH.

*Acanthis carduelis britannicus* Hartert, *Vögel Pal. Fauna*, 1, p. 68, Nov.,  
1903—Rottingdean, Sussex, England (type in Tring Collection, now in  
the American Museum of Natural History, New York).

*Carduelis carduelis bermudiana* Kennedy, *Bull. Brit. Orn. Cl.*, 33, p. 33,  
Oct. 24, 1913—Ireland Island, Bermudas (type in British Museum).

*Carduelis carduelis* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 1, p. 94, 1901  
—part, United States records; Bradlee and Mowbray, *Proc. Bost. Soc.*  
*N. H.*, 39, p. 343, 1931—Bermuda.

*Range*.—The British Isles, naturalized in Bermuda. Introduced into the United States and for a time established about New York City, but now extinct in that region.<sup>2</sup>

Genus **ACANTHIS** Borkhausen<sup>3</sup>

*Acanthis* Borkhausen, *Deutsche Fauna*, 1, p. 248, 1797—type, by subs.  
desig. (Stejneger, *Auk*, 1, p. 145, 1884, and A.O.U. *Comm. Check List*  
*N. Amer. Bds.*, 3rd ed., p. 247, 1910), *Fringilla linaria* Linnaeus = *Fringilla flammea* Linnaeus.

<sup>1</sup> Not having seen any Uruguayan material, I am unable to determine the racial affinities of the Greenfinch that has established itself for the last five years in the vicinity of Montevideo, as has been reported by the late Juan Tremoleras. While there seems to be no clew as to the country whence the original stock came from, the possibility cannot be excluded that some other form, perhaps *C. c. aurantiiventris*, of southern France and Spain, might be involved.

<sup>2</sup> A single adult from Long Island is unequivocally the British form. A race of the European Goldfinch is said to have been introduced into the island of Cuba (cf. Cory, *Cat. W. Ind. Bds.*, p. 123, 1892), but appears to have long vanished, for Barbour (*Mem. Nutt. Orn. Cl.*, 6, 1923) does not even mention it. According to Hartert (*Nov. Zool.*, 16, p. 182, 1909) and Dabbene (*Anal. Mus. Nac. Buenos Aires*, 18, p. 388, 1910), goldfinches have also been obtained at Barracas al Sur, Buenos Aires, but the race is undetermined.

<sup>3</sup> *Aegiothus (flavirostris var.) brewsterii* Ridgway (*Amer. Nat.*, 6, No. 7, p. 434, July, 1872), known from a single specimen taken at Waltham, Massachusetts,

*Linaria* Vieillot, *Analyse Nouv. Orn. Elém.*, p. 30, April, 1816—type, by monotypy, "Sizerin" Buffon = *Fringilla flammea* Linnaeus.

*Aegiothus* Cabanis, *Mus. Hein.*, 1, p. 161, Oct., 1851—type, by subs. desig. (Gray, *Cat. Gen. Subgen. Bds.*, p. 78, 1855), *Fringilla linaria* Linnaeus = *Fringilla flammea* Linnaeus.

*Linacanthus* Des Murs, in Chenu, *Enc. Hist. Nat.*, Ois., 5, pp. 292, 303, 1854—new name for *Acanthys* [sic] "Keyserling and Blasius."

*Acanthys* Des Murs, *Traité d'Ool. Orn.*, pp. 334, 546, 1862—emendation of *Acanthis* Borkhausen.

*Agriospiza* Sundevall, *Meth. Nat. Av. Disp. Tent.*, p. 32, 1872—type, by orig. desig., *Fringilla flavirostris* Linnaeus.

**\**Acanthis flammea flammea* (Linnaeus). COMMON REDPOLL.**

*Fringilla flammea* Linnaeus, *Syst. Nat.*, 10th ed., 1, p. 182, 1758—based on Faun. Suec., No. 201, which, in its turn, rests exclusively on "*Fringilla fusca, crista flammea*" Rudbeck, *Icon. ined.*, [pl. 11, fig. ii], "*Norlandia*" = Norrland, Sweden; cf. Lönnerberg, *Ibis*, 1931, p. 306, pl. 11, fig. 2 (crit.).

*Fringilla linaria* Linnaeus, *Syst. Nat.*, 10th ed., 1, p. 182, 1758—based on Faun. Suec., No. 210; Sweden.

*Linaria borealis* Vieillot, *Mém. Acad. Sci. Torino*, 23, "1816," *Sci. Fis. & Mat.*, p. 199, 1818—new name for *Fringilla linaria* Linnaeus.

*Linaria americana* Wied, *Journ. Orn.*, 6, p. 338, 1858—upper Missouri River (winter) (type in Wied Collection, now in the American Museum of Natural History, New York).

*Acanthis linaria* Sharpe, *Cat. Bds. Brit. Mus.*, 12, p. 245, 1888 (monog., part, excl. of Labrador).

*Acanthis linaria linaria* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 1, p. 85, 1901 (monog., full bibliog., excl. of Labrador); Grinnell, *Univ. Calif. Pub. Zool.*, 5, p. 398, 1910—Prince William Sound region, Alaska (crit.); Swarth, *l.c.*, 7, p. 83, 1911—Kupreanof Island, Alaska.

*Acanthis flammea flammea* Hartert, *Vög. Pal. Fauna*, 1, p. 77, 1903 (monog.).

*Carduelis linaria linaria* Salomonsen, *Vidensk. Medd. Naturh. Foren.*, 86, p. 126, 1928 (monog.).

**Range.**—Breeds in Boreal zones of North America from north-western Alaska, northern Mackenzie, and northern Quebec south to northern Alberta, northern Manitoba, and islands in the Gulf of St. Lawrence; also throughout northern Europe and northern Asia; winters in the northern parts of the United States, irregularly south

on November 1, 1870, now in the Museum of Comparative Zoology, Cambridge, Mass. (cf. Bangs, *Bull. Mus. Comp. Zool.*, 70, p. 379, 1930), is considered as a possible hybrid between *Acanthis flammea* (Linnaeus) and *Spinus pinus* (Wilson).

A somewhat similar form of hybrid origin was obtained on the Colle di Tenna, Trentino, northern Italy, on October 29, 1908. It is discussed at length by Martorelli (*Pub. Mus. Civ. Rovereto*, No. 47, pp. 1-17, 1900), who believes the bird to be probably the result of hybridization between *A. flammea* and *Chloris chloris* (Linnaeus).



to Oregon, California, Colorado, Kansas, Indiana, Ohio, Alabama, and South Carolina, also over the greater part of Europe and south to central Asia; accidental in Bermuda.<sup>1</sup>

80: Alberta (Red Deer, 10); British Columbia (Okanagan, 2); Ontario (Hyde Park, 1); Quebec (unspecified, 1); Maine (Brewer, 2); New York (Owasco, 1); Massachusetts (Lexington, 1; Boston, 1; Cambridge, 1; Monson, 2; Burlington, 1; Somerville, 1; Quincy, 1); Connecticut (New Haven, 1); Rhode Island (Providence, 1); Wisconsin (Beaver Dam, 17; Meridian, 1; unspecified, 3); Michigan (Kalamazoo, 2); Illinois (Brandenburg Lake, Volo, 1; Waukegan, 2; Pistakee Bay, 3; Beach, Lake County, 11; Lake Forest, 1; South Chicago, 1; Indiana (Roby, 1; Miller, 4; Liverpool, 6).

***Acanthis flammea holboellii* (Brehm). HOLBOELL'S REDPOLI.**

*Linaria Holboellii* Brehm, Handb. Naturg. Vög. Deuts., p. 280, 1831—"middle Germany [=Roda Valley, Thuringia] in November, 1822 and 1825" (probable type in Brehm Collection, now in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 25, p. 10, 1918).

*Linaria alnorum* Brehm, Handb. Naturg. Vög. Deuts., p. 281, 1831—same habitat as *L. holboellii* (no type apparently extant).

*Linaria longirostris* Brehm, Vollst. Vogelf., p. 107, 1855—visits Germany from the north (no type extant).

*Fringilla linaria magnirostris* Holmgren, Scand. Fugl., 1, p. 328, 1866—northern Sweden.

*Linaria brunnescens* Homeyer, Journ. Orn., 27, p. 184, 1879—part, Sweden and Lapland (no type specified, but doubtless in coll. of E. F. von Homeyer, now in Brunswick Museum).

[*Acanthis linaria*] subsp. *a* *Acanthis holboelli* Sharpe, Cat. Bds. Brit. Mus., 12, p. 250, 1888 (monog.).

*Acanthis linaria holboellii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 89, 1901 (monog., full bibliog.).

*Acanthis flammea holboellii* Hartert, Vög. Pal. Fauna, 1, p. 79, 1903 (crit.).

*Carduelis linaria holbølli* Salomonsen, Vidensk. Medd. Naturhist. Foren., 86, p. 139, 1928 (monog.); Hartert, Nov. Zool., 27, p. 156, 1920—Bering Island (crit.).

*Acanthis holboelli* Brooks, Bull. Mus. Comp. Zool., 59, p. 404, 1915—Petro-pavlovsk, Kamchatka, and islands in the Bering Sea (East Cape Island, Big Diomed Island, and St. Lawrence Island).

<sup>1</sup> Asiatic birds, for which various names, *A. intermedius* Dybowski (Bull. Soc. Zool. France, 8, p. 365, 1883), *A. innominatus* Dybowski (l.c., p. 365, 1883), and *A. linaria asiaticus* Domaniewski (Compt. Rend. Soc. Scient. Varsovie, 10, p. 1054, 1917) have been proposed, and the inhabitants of North America (*L. americana*) are stated by Salomonsen to be indistinguishable from those of northern Europe.

*Range*.—Breeds in extreme northern Scandinavia and east along the Arctic coast to western Siberia, and also on Herschel Island, the Commander Islands, Kamchatka, and adjacent parts of north-eastern Siberia; occasional in winter to northwestern Alaska, Canada, and the eastern United States, also in Sweden, England, Germany, Hungary, Russia, central Asia, and northern Japan.<sup>1</sup>

**\**Acanthis flammea fuscescens* (Coues).<sup>2</sup> LABRADOR REDPOLL.**

*Aegiothus fuscescens* Coues, Proc. Acad. Nat. Sci. Phila., 1861, for August, p. 222—Fort Resolution and coast of Labrador (cotypes, from Groswater Bay, Labrador, in U. S. National Museum; cf. Stejneger, Bull. U. S. Nat. Mus., 29, p. 256, 1885); idem, l.c., 1861, p. 380 (crit.).

*Acanthis linaria linaria* (not *Fringilla linaria* Linnaeus) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 85, 1901—part, Labrador.

*Acanthis linaria* Townsend and Allen, Proc. Bost. Soc. N. H., 33, p. 392, 1907—Labrador Peninsula.

*Acanthis linaria fuscescens* Hantzsch, Journ. Orn., 56, p. 384, 1908—north-eastern Labrador (crit.).

*Carduelis linaria fuscescens* Salomonsen, Vidensk. Medd. Naturh. Foren., 86, p. 148, 1928—Labrador (monog.).

*Range*.—Breeds in eastern Labrador and winters probably in eastern Canada, Maine, Massachusetts, Illinois, and Iowa (Salomonsen, l.c.).

5: Labrador (Anatalok Bay, 3; Nain, 2).

**\**Acanthis flammea rostrata* (Coues). GREATER REDPOLL.**

*Aegiothus rostratus* Coues, Proc. Acad. Nat. Sci. Phila., 1861, Nov.-Dec., p. 378, pub. Mar. 31, 1862—Jakobshavn, Greenland (type in U. S. National Museum).

*Linaria brunnescens* Homeyer, Journ. Orn., 27, p. 184, 1879—part, Greenland.

[*Acanthis linaria*] subsp.  $\beta$  *Acanthis rostrata* Sharpe, Cat. Bds. Brit. Mus., 12, p. 251, 1888—Greenland and Illinois (Chicago).

*Acanthis linaria rostrata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 91, 1901 (monog., full bibliog.).

<sup>1</sup> The breeding range of this form is still very imperfectly known. It appears to breed in scattered, often widely separated colonies north of the breeding area of *A. f. flammea*, and its winter range also cannot be defined with absolute accuracy, since the present form has frequently been confused with other races, in America especially with *A. f. fuscescens*. The case has been discussed very lucidly by Salomonsen (pp. 139-148), whose account should be carefully consulted by everyone interested in this complicated subject.

<sup>2</sup> *Acanthis flammea fuscescens* (Coues), although not currently recognized, is regarded by Hantzsch and Salomonsen as distinguishable on account of very dark brownish-black dorsal coloration with some scattered white spots, but without any brownish lateral margins. Besides, the streaking on the sides and flanks is generally heavier, and the red color as a rule more intense.

*Acanthis flammea rostratus* Hartert, Vög. Pal. Fauna, 1, p. 80, 1903 (monog.).

*Carduelis linaria rostrata* Stresemann, Orn. Monatsber., 34, p. 88, 1926—Heligoland (Oct. 24, 1879); Salomonsen, Vidensk. Medd. Naturh. Foren., 86, p. 151, 1928 (monog.); idem, Ornith. Monatsber., 39, p. 113, 1931—southern part of East Greenland; Nicholson, Ibis, 1930, p. 287—Godthaab Fiord, Greenland (habits).

*Range*.—Resident in southern Greenland, north to about lat. 70°; irregularly in winter south through Manitoba, Ontario, Quebec, and Ungava to Montana, Colorado, northern Illinois, Michigan, northern Indiana and New York, Massachusetts, and Connecticut; casual on the Hebrides, Shetlands, and Orkneys, Scotland; accidental in Heligoland (Oct. 24, 1879).

9: Massachusetts (Hingham, 1; Monson, 2; West Newton, 1; Taunton, 1); Greenland (Simiutak, 4).

**\**Acanthis flammea exilipes* (Coues).<sup>1</sup> HOARY REDPOLL.**

*Aegiothus exilipes* Coues, Proc. Acad. Nat. Sci. Phila., 1861, Nov.-Dec., p. 385, pub. March 31, 1862—Fort Simpson, Mackenzie (type in U. S. National Museum).

*Acanthis exilipes* Sharpe, Cat. Bds. Brit. Mus., 12, p. 254, 1888 (monog.).

*Acanthis hornemannii exilipes* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 82, 1901 (monog., full bibliog.); Hartert, Vög. Pal. Fauna, 1, p. 81, 1903 (crit.); Townsend and Allen, Proc. Bost. Soc. N. H., 33, p. 391, 1907—northern Labrador.

*Carduelis linaria exilipes* Salomonsen, Vidensk. Medd. Naturh. Foren., 86, p. 163, 1928 (monog.).

*Acanthis hornemanni exilipes* Sutton, Mem. Carnegie Mus., 12, Part 2, Sect. 2, p. 228, 1932—Southampton Island (breeding).

*Linaria sibirica* (Severtzow MS.) Homeyer, Journ. Orn., 27, p. 185, 1879—Onon and Baical, Siberia (cotypes in coll. of E. F. von Homeyer, now in Brunswick Museum).

*Linaria pallescens* Homeyer, Journ. Orn., 28, p. 156, 1880 (= *L. sibirica* Homeyer, 1879).

*Range*.—Breeds from western Alaska to Ungava, and throughout Arctic Asia to northern Lapland; winters occasionally south to British Columbia, Montana, northern Minnesota, Michigan, Illinois, Ontario, Maine, Massachusetts, New York, and Connecticut, also to Japan and various countries in Europe.

13: Alaska (Nome, 5; St. Michael, 1; Chamisso Island, Kotzebue Sound, 1); Alberta (Red Deer, 3); Minnesota (Humboldt, 1; Northcote, 1); Wisconsin (Beaver Dam, 1).

<sup>1</sup> Salomonsen (Vidensk. Medd. Naturhist. Foren., 86, pp. 123-202, 1928) has supplied convincing evidence for considering all Redpolls as races of a single specific entity. The distributional map accompanying his excellent review plainly shows that nowhere do two races regularly breed side by side, while areas of intergradation ("Mischgebiete") are not infrequent.

**\**Acanthis flammea hornemanni* (Holboell). HORNEMANN'S REDPOLL.**

*Linota hornemanni* Holboell, Naturhist. Tidsskr., 4, (4), p. 398, 1843—Greenland (type, from Ameralikfjord, in Copenhagen Museum; cf. Salomonsen, Vidensk. Medd. Naturhist. Foren., 86, p. 170, 1928).

[*Acanthis exilipes*] subsp. *a* *Acanthis hornemanni* Sharpe, Cat. Bds. Brit. Mus., 12, p. 256, 1888—Greenland, Labrador, and Ungava (Fort Chimo).

*Acanthis hornemannii hornemannii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 80, 1901 (monog., full bibliog.); Hartert, Vög. Pal. Fauna, 1, p. 81, 1903 (crit.).

*Carduelis linaria hornemannii* Salomonsen, Vidensk. Medd. Naturhist. Foren., 86, p. 169, 1928 (monog.).

*Acanthis hornemanni hornemanni* Sutton, Mem. Carnegie Mus., 12, Part 2, Sect. 2, p. 226, 1932—Southampton Island (visitant).

**Range.**—Resident in Greenland north of lat. 70°; in winter and in migration irregularly to Ungava and Southampton Island; casual at Fort Churchill, Hudson Bay, and at Galt, Ontario; accidental in Jan Mayen, Spitzbergen, England, and France.<sup>1</sup>

4: Quebec (Fort Chimo, 2; Whitefish Lake, 1); Labrador (Kamarsuk, 1).

**Genus LOXIMITRIS Bryant**

*Loximitris* Bryant, Proc. Bost. Soc. N. H., 11, p. 93, May, 1867—type, by monotypy, *Chrysomitris dominicensis* Bryant.

**\**Loximitris dominicensis* (Bryant). HISPANIOLAN SISKIN.**

*Chrysomitris dominicensis* Bryant, Proc. Bost. Soc. N. H., 11, p. 93, May, 1867 - "Port-au-Prince," Haiti (type in U. S. National Museum); Cory, Bull. Nutt. Orn. Cl., 6, p. 152, 1881—near Petionville, Haiti.

*Loximitris dominicensis* Cory, Bds. Haiti and San Domingo, p. 67, col. pl., 1884—Petionville; idem, Auk, 3, p. 207 (descr.); idem, Bds. W. Ind., p. 94, 1889 (descr.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 234, 1888—"San Domingo"; Cory, Cat. W. Ind. Bds., p. 111, 1892—Haiti and Dominican Republic; idem, Auk, 12, p. 279, 1895—Dominican Republic; Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 16, 1896—Aguacate and Catarey, Dominican Republic (descr. of female and young); Christy, Ibis, 1897, p. 324—La Vega; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 107, 1901—Hispaniola (monog.); Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 362, 1909—La Vega, Dominican Republic; Bond, I.c., 80, p. 518, 1928—La Selle, Haiti (habits); Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 326, 1929—Loma del Medio, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 438, 1931—Hispaniola (habits, distribution, descr.).

<sup>1</sup> There is no authentic record of this redpoll from Iceland. Breeding reports refer to *A. f. islandica* Hantzsch (Orn. Monatsber., 12, p. 32, 1904), the only form of redpoll nesting on that island.

*Range*.—Mountains of the island of Hispaniola, Greater Antilles. 12: Haiti (Petionville, 3); Santo Domingo (Aguacate, 5; Catarey, 3; unspecified, 1).

### Genus SPINUS Koch

*Spinus* Koch, Syst. Baier. Zool., 1, p. 232, 1816—type, by tautonymy, *Fringilla spinus* Linnaeus.

*Chrysomitris* Boie, Isis, 1828, p. 322—type, by subs. desig. (Gray, List. Gen. Bds., p. 45, 1840), *Fringilla spinus* Linnaeus.

*Sporagra* Reichenbach, Av. Syst. Nat., pl. 79, June 1, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 77, 1855), *Fringilla magellanica* Vieillot.

*Pyrrhomitris* Bonaparte, Consp. Gen. Av., 1, (2), p. 517, end of 1850—type, by monotypy, *Carduelis cucullatus* Swainson.

*Astragalinus* Cabanis, Mus. Hein., 1, p. 159, Oct., 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 77, 1855), *Fringilla tristis* Linnaeus.

*Melanomitris* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 91—type, by subs. desig. (Sharpe, Cat. Bds. Brit. Mus., 12, p. 192, 1888), *Carduelis atrata* Lafresnaye and d'Orbigny.

*Pseudomitris* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 93—type, by subs. desig. (Sharpe, Cat. Bds. Brit. Mus., 12, p. 192, 1888), *Fringilla psaltria* Say.

### \**Spinus pinus pinus* (Wilson). NORTHERN PINE SISKIN.

*Fringilla pinus* Wilson, Amer. Orn., 2, p. 133, pl. 17, fig. 1, 1810—Bush-hill in the neighborhood of Philadelphia, Pennsylvania (type in Peale's Museum, obviously lost).

*Chrysomitris pinus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 227, 1888 (monog., excl. spec. p, r, Jalapa, Mexico).

*Spinus pinus pinus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 97, 1901 (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 175, 1906—Cienaga de las Vacas, Durango (Mar. 30); Phillips, Auk, 28, p. 87, 1911—Galindo, Tamaulipas; Grinnell, Univ. Calif. Pub. Zool., 32, p. 159, 1928—Lower California (winter); Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 324, 1929—southern Arizona (crit.); van Rossem, Bull. Mus. Comp. Zool., 77, p. 481, 1934—Chihuahua and Sonora (Nacozari; Oposura, June 2).

*Range*.—Breeds in North America, from Alaska, southern Mackenzie, central Manitoba, and Quebec south through the mountains of the western United States to southern California and southern New Mexico, and also to Nebraska, northern Minnesota and Michigan, New Brunswick, Nova Scotia, Maine, New Hampshire, northwestern Pennsylvania, and the mountains of North Carolina; winters in the greater part of the United States to southern Florida and extreme northern Mexico (Lower California; northern

Sonora;<sup>1</sup> northwestern Durango, Cienaga de las Vacas; Chihuahua; and Tamaulipas).

90: Ontario (Coldstream, 1; Toronto, 1); British Columbia (Okanagan, 2); Maine (Parmachene Lake, Oxford County 1); New York (Sing Sing, 4; Cayuga County, 1; Long Island, 1); Massachusetts (Great Island, 21); Michigan (Huron Mountains, Marquette County, 2; Ann Arbor, 1); Wisconsin (Beaver Dam, 1); Illinois (Beach, Lake County, 10; Chicago, 1; Joliet, 1); Indiana (Miller, 1; Bluffton, 3); South Carolina (Aiken, 1); District of Columbia (Washington, 1); Florida (Mary Esther, 1); California (Lassen County, 1; Big Bear Valley, 1; Clipper Gap, Placer County, 8; Nicasio, 1; Palo Alto, 1; San Mateo, 1; Monterey, 6; San Bernardino Mountains, 1); Colorado (Routt County, 2; Berthoud's Pass, 1; Floyd Hill, 1; Fort Lyon, 7; unspecified, 1); Arizona (Carr Canyon, Huachuca Mountains, 1; Huachuca Mountains, 1); Mexico (40 miles southwest of Miñaca, Chihuahua, 1).

***Spinus pinus macropterus* (Bonaparte). MEXICAN PINE SISKIN.**

*Chrysomitris macroptera* (Du Bus MS.)<sup>2</sup> Bonaparte, *Consp. Gen. Av.*, 1, (2), p. 515, end of 1850—"Guatimala" (errore) and Mexico (location of type not stated, probably in Brussels Museum).

*Chrysomitris pinus* (not *Fringilla pinus* Wilson) Sclater, *Proc. Zool. Soc. Lond.*, 1864, p. 174—Valley of Mexico; Sclater and Salvin, *I.c.*, 1869, p. 362—City of Mexico; Sumichrast, *Mem. Bost. Soc. N. H.*, 1, p. 550, 1869—plateau and alpine region of Vera Cruz; Salvin and Godman, *Biol. Centr.-Amer.*, Aves, 1, p. 428, 1886—part, Mexican localities; Sharpe, *Cat. Bds. Brit. Mus.*, 12, p. 227, 1888—part, spec. p-r, Jalapa, Mexico.

*Spinus pinus* Bryant, *Proc. Calif. Acad. Sci.*, (2), 2, p. 298, 1889—Sierra San Pedro Mártir; Anthony, *Zoe*, 4, p. 240, 1893—Sierra San Pedro Mártir; Huey, *Auk*, 36, p. 357, 1926—Sierra Juárez, Lower California (breeding).

*Spinus pinus macroptera* Chapman, *Auk*, 16, p. 311, 1897—Las Vegas, Vera Cruz, Mexico (crit.); idem, *Bull. Amer. Mus. N. H.*, 10, p. 42, 1898—Las Vegas.

*Spinus pinus macropterus* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 1, p. 100, 1901 (monog., bibliog.); Todd, *Auk*, 40, p. 330, 1923—San Pedro Mártir, Lower California (crit.); Grinnell, *Condor*, 30, p. 191, 1928 (crit., range); idem, *Univ. Calif. Pub. Zool.*, 32, p. 159, 1928—Sierra San Pedro Mártir and Sierra Juárez, Lower California (breeding); van Rossem, *Trans. San Diego Soc. N. H.*, 6, p. 295, 1931—Sarie, Sonora (May 15).

<sup>1</sup> The subspecific status of the siskins breeding in northwestern Mexico is in doubt. Birds from southern Arizona and southern California are stated by Swarth and Grinnell to be paler and less heavily streaked below, thus verging toward *macropterus*.

<sup>2</sup> Plate 23 (*Carduelis macroptera*) of Du Bus's "Esquisses Ornithologiques," intended for Part 5, apparently was never published.

*Range*.—Mountains of Mexico, from Sonora south through Zacatecas and Michoacan to Mexico, Puebla, and Vera Cruz; also in the Sierra San Pedro Mártir and Sierra Juárez, northern Lower California.<sup>1</sup>

**Spinus atriceps** (Salvin).<sup>2</sup> GUATEMALAN PINE SISKIN.

*Chrysomitris atriceps* Salvin, Proc. Zool. Soc. Lond., 1863, p. 190—near Quetzaltenango, Guatemala (type in Salvin-Godman Collection, now in British Museum); idem, Ibis, 1866, p. 194—Quezaltenango; Ridgway, Ibis, 1884, p. 43 (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 429, pl. 31, figs. 1, 2, 1886—Quezaltenango; Sharpe, Cat. Bds. Brit. Mus., 12, p. 200, 1888—same locality.

*Spinus atriceps* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 100, 1901—Guatemala (Quetzaltenango, Hacienda Chancol) and Chiapas (San Cristóbal); Griscom, Bull. Amer. Mus. N. H., 64, p. 354, 1932—Tecpam, Guatemala.

*Range*.—Mountains of western Guatemala (Quezaltenango, Hacienda Chancol, Tecpam) and the adjacent parts of south-eastern Mexico (San Cristóbal, Chiapas).

**\*Spinus spinescens spinescens** (Bonaparte). LICHTENSTEIN'S SISKIN.

*Chrysomitris spinescens* (Lichtenstein MS.) Bonaparte, Consp. Gen. Av., 1, (2), p. 517, end of 1850—Santa Fé de Bogotá, Colombia (type in Berlin Museum); Cabanis, Mus. Hein., 1, p. 160, 1851—Colombia; Selater, Proc. Zool. Soc. Lond., 23, p. 159, 1855—"Bogotá"; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 90 (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 199, 1888—part, spec. a-d, "Bogotá."

*Spinus spinescens spinescens* Chapman, Bull. Amer. Mus. N. H., 36, p. 563, 1917—Bogotá, La Holanda, La Porquera, La Mar, Chipaque, and El Roble, Colombia; Todd, Ann. Carnegie Mus., 17, p. 32, 1926—eastern Andes of Colombia and western Venezuela (monog.).

*Range*.—Temperate zone of the eastern Andes of Colombia and of western Venezuela (Cordillera of Mérida).<sup>3</sup>

1: Venezuela (Páramo de Tamá, 1).

**Spinus spinescens capitaneus** Bangs.<sup>4</sup> SANTA MARTA SISKIN.

<sup>1</sup> Van Rossem (Bull. Brit. Orn. Cl., 58, p. 134, July 13, 1938) has lately discriminated *Spinus pinus perplexus* (type from San Andres, Chiapas, in the British Museum) from southeastern Mexico (Chiapas) and western Guatemala.

<sup>2</sup> *Spinus atriceps* (Salvin), which we have not seen, seems to be related to *S. spinescens*, of South America.

<sup>3</sup> *Additional material examined*—Colombia: "Bogotá," 12.—Venezuela: Andes of Mérida, 2.

<sup>4</sup> *Spinus spinescens capitaneus* Bangs: Very similar to the nominate race, but with larger bill; under parts of males slightly more olivaceous, and in females on average more grayish. Size the same.

*Material examined*.—Colombia: San Sebastian, 4; San Miguel, 4.

*Spinus spinescens capilaneus* Bangs, Proc. Biol. Soc. Wash., 12, p. 178, Oct. 31, 1898—San Miguel, Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 378, 1930); idem, Proc. New Engl. Zool. Cl., 1, p. 79, 1899—San Sebastian; Todd and Carriker, Ann. Carnegie Mus., 14, p. 534, 1922—Macotama; Todd, l.c., 17, p. 35, 1926—Sierra Nevada of Santa Marta (monog.).

*Chrysomitris spinescens* (not of Bonaparte) Sharpe, Cat. Bds. Brit. Mus., 12, p. 199, 1888—part, spec. e-g, Sierra Nevada and San Sebastian, Colombia.

*Range*.—Temperate zone of the Sierra Nevada de Santa Marta in northern Colombia.

### ***Spinus spinescens nigricauda* Chapman.<sup>1</sup> BLACK-TAILED SISKIN.**

*Spinus nigricauda* Chapman, Bull. Amer. Mus. N. H., 31, p. 160, July 23, 1912—Páramo de Santa Isabel, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 564, 1917—Santa Isabel and Paramillo, Colombia; Todd, Ann. Carnegie Mus., 17, p. 36, 1926—western and central Andes of Colombia (monog.).

*Range*.—Temperate zone of the central and western Andes of Colombia (Santa Isabel; Paramillo).

### **\**Spinus yarrellii* (Audubon).<sup>2</sup> YARRELL'S SISKIN.**

*Fringilla mexicana* (not *Carduelis mexicanus* Swainson) Audubon, Orn. Biog., 5, p. 282, pl. 433, fig. 4 (male), 1839—"Upper California" (part, descr. of male).

*Carduelis yarrellii* Audubon, Syn. Bds. N. Amer., p. 117, 1839—part, descr. of male; "Upper California," errore<sup>3</sup> (type now in U. S. National Museum; cf. Baird, Rep. Expl. Surv. R. R. Pacif., 9, p. 421, 1858).

<sup>1</sup> *Spinus spinescens nigricauda* Chapman: Nearest to *S. s. capilaneus*, but wings and tail slightly longer; yellow at base of tail absent or at best suggested; back darker, Roman green rather than warbler green, with pronounced, more blackish centers; yellow on wing more restricted; under tail coverts faintly streaked; female (in adult plumage) approaching the male in coloration, but pileum less blackish. Wing (male), 71–72; tail, 45–47.

The variation in the amount of yellow at the base of the tail in typical *spinescens*, the occasional occurrence of traces of it in specimens from western Colombia, and the variability of the other characters leave, in my mind, no doubt that *nigricauda* is merely a race of Lichtenstein's Siskin.

*Material examined*.—Colombia: Santa Isabel, central Andes, 2; Paramillo, western Andes, 1.

<sup>2</sup> *Spinus yarrellii* (Audubon) is probably conspecific with *S. spinescens*. Certain specimens from the Lake Valencia region, northern Venezuela, have the upper tail coverts, indeed, decidedly greenish, thus marking a step in the direction of Lichtenstein's Siskin.

<sup>3</sup> Audubon received the type (together with an alleged female, which, judging from his figure, appears to belong to one of the races of *S. psaltria*), from William Swainson, who might have secured it on his trip to eastern Brazil. Mr. Todd (Ann. Carnegie Mus., 17, p. 32, 1926) very aptly suggested Bahia as corrected type locality.



*Chrysomitris hypoxantha* Cabanis, Journ. Orn., 14, p. 160, 1866—Bahia and Leopoldina, Bahia (type, from Bahia, in Berlin Museum).

*Chrysomitris yarrelli*(i) Bonaparte, Consp. Gen. Av., 1, (2), p. 517, 1850 (ex Audubon); Sclater, Proc. Zool. Soc. Lond., 26, p. 7, 1857—"Orinoco," Venezuela (crit.); Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 93—"Orinoco" (crit.); Forbes, Ibis, 1881, p. 338—Parahyba and Pernambuco (Garanhuns, Quipapá); Sharpe, Cat. Bds. Brit. Mus., 12, p. 198, 1888—Bahia and Pernambuco; Nicoll, Ibis, 1906, p. 669—Bahia; Snethlage, Journ. Orn., 55, p. 297, 1907—"Pará" (cage-bird); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 178, 1925—Fazenda da Serra, Rio Grande, Bahia.

*Spinus yarrelli* Ihering, Cat. Faun. Braz., 1, p. 380, 1907—Bahia.

*Spinus jarelli* Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará.

*Chrysomitris icterica alleni* (not *Spinus alleni* Ridgway) Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—part, Nos. 453, 454, Fazenda da Serra, Rio Grande, Bahia (spec. examined).

*Spinus yarrellii* Todd, Ann. Carnegie Mus., 17, p. 30, 1926—eastern Brazil (Bahia to Ceará) and northern Venezuela (monog.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 298, 1929—Juá, near Iguatú, Ceará.

*Range*.—Arid Tropical zone of eastern Brazil (from Leopoldina, southern Bahia, north to Ceará) and northern Venezuela (El Trompillo, Carabobo).<sup>1</sup>

1: Brazil (Juá, near Iguatú, Ceará, 1).

**\**Spinus cucullatus* (Swainson). RED SISKIN.**

*Carduelis cucullata* Swainson, Zool. Illust., 1, Part 2, pl. 7, Nov., 1820—"Spanish Main"—north coast of Venezuela<sup>2</sup> (type in coll. of E. Falkner, of Fairfield, near Liverpool, present location unknown; descr. of male); Sundevall, Oefvers. Vetensk.-Akad. Förh., 26, p. 597, 1869—Porto Rico (crit.).

*Fringilla cubae* Gervais, Mag. Zool., 5, cl. 2, pl. 44, 1835—Santiago, Cuba (type in Paris Museum examined; descr. of male); Gundlach, Journ. Orn., 4, p. 10, 1856 (not seen in Cuba); Cabanis, l.c., 5, p. 241, 1857—Caracas, Venezuela; Gundlach, l.c., 19, p. 282, 1871—Cuba (cage-bird).

*Pyrrhomitris cucullata*(us) Bonaparte, Consp. Gen. Av., 1, (2), p. 517, 1850—Cumaná, Venezuela; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 269, 1860—north side of Cuba (crit.); Gundlach, Orn. Cub., p. 21, 1876—

<sup>1</sup> Specimens from Venezuela (El Trompillo, Carabobo), which we have seen in the Carnegie Museum, do not appear to be satisfactorily separable, although they average slightly larger and *sometimes* have the upper tail coverts more greenish. The discontinuous distribution of Yarrell's Siskin offers an interesting parallel to that of *Basileuterus flaveolus* (Baird).

*Additional material examined*.—Brazil: Bahia, 14; Fazenda da Serra, Rio Grande, Bahia, 2; Pernambuco, 1; Ceará, 1.—Venezuela: El Trompillo, Carabobo, 14.

<sup>2</sup> Cumaná suggested as type locality by Todd (Ann. Carnegie Mus., 17, p. 43, 1926).

Cuba (escaped cage-bird); idem, Journ. Orn., 22, p. 312, 1874—Porto Rico; idem, l.c., 26, p. 160, 1878—Porto Rico; idem, Anal. Soc. Esp. Hist. Nat., 7, p. 207, 1878—Porto Rico (escaped cage-bird); Cory, Auk, 3, p. 207, 1886—Cuba and Porto Rico ("introduced"); idem, Bds. W. Ind., p. 94, 1889—Cuba and Porto Rico ("introduced"); idem, Cat. W. Ind. Bds., p. 111, 1892—Cuba and Porto Rico ("introduced").

*Chrysomitris cucullata* Sclater, Cat. Coll. Amer. Bds., p. 123, 1862—"Trinidad"; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 91—"Trinidad," "Cayenne," and Venezuela (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Carúpano [Sucre] and Caracas, Venezuela; Finsch, l.c., 1870, p. 553—"Trinidad" (ex Sclater); Sharpe, Cat. Bds. Brit. Mus., 12, p. 225, 1888—Venezuela (Carúpano, Caracas), "Trinidad," and Cuba.

*Spinus cucullata* Chapman, Bull. Amer. Mus. N. H., 6, p. 33, 1894—Monos Island, near Trinidad.

*Spinus cucullatus* Phelps, Auk, 14, p. 364, 1897—San Antonio [Bermúdez], Venezuela; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 104, 1901—Venezuela, Trinidad, Cuba, and Porto Rico (monog.); Hellmayr, Nov. Zool., 13, p. 56, 1906—Monos Island and Cumaná, Venezuela (not in Trinidad proper); Wetmore, Sci. Surv. Porto Rico & Virgin Islands, 9, p. 559, 1927—Porto Rico (cage-bird); Todd, Ann. Carnegie Mus., 17, p. 41, 1926—Caracas to Monos Island (monog.); Roberts, Trop. Agric., 11, p. 99, 1934—Monos Island.

*Range*.—Arid Tropical zone of northern Venezuela, from the region around Mérida (Sabaneta) east to Sucre, and Monos Island, off Trinidad.<sup>1</sup>

1: "Trinidad," 1.

### ***Spinus crassirostris* (Landbeck).<sup>2</sup> THICK-BILLED SISKIN.**

*Chrysomitris crassirostris* Landbeck, Zool. Garten, 18, p. 254, 1877—near the Chilean boundary on Argentine territory, not far from the passes of

<sup>1</sup> Although Chapman secured an example on the little island of Monos, there is not yet any authentic record of the occurrence of this siskin in Trinidad proper. Trade skins labeled "Trinidad" are of Venezuelan preparation, and doubtless originated in Venezuela. S. Briceño obtained a single adult male at Sabaneta (alt. 600 metr.), Mérida, now in the Tring Collection at the American Museum of Natural History, which agrees perfectly with individuals from more eastern localities.

Records from Cuba and Porto Rico refer to escaped cage-birds. Some may have lingered there some time, but none has been seen on either island for many years. The type of *F. cubae* exhibits unmistakable signs of having been kept in captivity.

*Additional material examined*.—Venezuela: Bermúdez: Plains of Cumaná, 3; San Antonio, 6; La Tigrera, 1; Los Palmales, 1; Campos Alegre, 1; Quebrada Secca, 1; La Montaña del Guacharo, 1.—Mérida: Sabaneta, 1.—Cuba: Santiago, 1 (type of *F. cubae*).

<sup>2</sup> *Spinus crassirostris* (Landbeck), though related to the *S. magellanicus* group, may immediately be distinguished by its larger size and the enormous bill, which is not only decidedly longer, but from two to three times as bulky as in the other members of the genus. The adult male, which like its allies has the whole head including the throat deep black, differs from *S. m. urubambensis* and the other races by duller coloration, the back being about yellowish olive and the lower

Uspallata and Portillo, in the high Cordillera, Prov. Mendoza (descr. of male; type in National Museum, Santiago de Chile).<sup>1</sup>

*Spinus ictericus magnirostris* Dabbene, *Physis*, 4, No. 16, p. 105, May 15, 1918—Sierra del Cajón, Salta, and Laguna Blanca, Catamarca (type, from Sierra del Cajón, Salta, in Museo Nacional de Historia Natural, Buenos Aires); idem, *El Hornero*, 1, p. 181, 1918 (reprint of orig. descr.); Barros, *Rev. Chil. Hist. Nat.*, 25, p. 187, 1921—El Peñon and Ojos de Agua, Rio Aconcagua, and Valle de los Leones, Prov. Aconcagua, Chile.

*Spinus crassirostris* Todd, *Ann. Carnegie Mus.*, 17, p. 40, 1926—western Argentina (Salta, Catamarca, and Sierras of Mendoza) and central Chile (monog.); Deautier, *El Hornero*, 4, pp. 186, 187, 1928 (crit., range); Hellmayr, *Field Mus. Nat. Hist., Zool. Ser.*, 19, p. 81, 1932—Puna zone of Aconcagua, Chile (crit.).

*Range.*—High mountains (chiefly in the Puna zone) of western Argentina (Sierra del Cajón, Salta; Corral Quemado and Lago Helado, Catamarca; Puente del Inca, Mendoza) and central Chile (Prov. Aconcagua).

**\**Spinus magellanicus capitalis* (Cabanis).<sup>2</sup> CABANIS'S SISKIN.**

*Chrysomitris capitalis* Cabanis, *Journ. Orn.*, 14, p. 160, 1866—Ecuador (descr. of male; type in Berlin Museum examined); Taczanowski, *Proc.*

abdomen buffy, while the apical bands to the greater upper wing coverts are dull pyrite yellow instead of bright lemon yellow. The female, with which we are not acquainted, is stated by Todd to be similar in coloration to that of *S. m. capitalis*. Wing (adult males), 80–82; tail, 52–56; bill, 13½–15; depth at base, 10–12.

This striking bird, while possibly a geographic representative of *S. magellanicus*, as considered by Dabbene, may provisionally be accorded specific rank until its breeding range has been definitely established.

*Material examined.*—Argentina: Lago Helado (alt. 3,000 metr.), Catamarca, 1; Puente del Inca (alt. 10,000 ft.), Mendoza, 4.

<sup>1</sup> According to Landbeck, *Anal. Univ. Chile*, 41, p. 102, 1872, where *Chrysomitris* [sic] *crassirostris* is, however, a pure nomen nudum. The specimen is not listed by Gigoux and Looser (*Bol. Mus. Nac. Santiago*, 13, pp. 5–33, 1930), but these authors have also omitted several other types belonging to the collections of the Chilean National Museum.

<sup>2</sup> *Spinus magellanicus capitalis* (Cabanis), when compared to *S. m. paulus* and *S. m. peruanus*, is generally distinguished in the male sex by stronger bill, darker green and more heavily spotted back, the restriction of the black hood on the sides of the head, and duller, more greenish yellow under parts. However, the two last-named characters are far from constant, and certain examples of *peruanus* do not differ at all from *capitalis* in these respects. The type of *C. capitalis* is a perfectly typical example of the present form, and compares well with the average of the birds from the highlands of Ecuador, having the same amount of black on the throat. The type of *C. sclateri* is somewhat aberrant, having the chin and throat yellow like the remainder of the under surface, but the individual nature of this divergency is proved by two males from "Nanegal." One bird has only on one side of the chin some black, while in the other this color extends, in the form of irregular spots, towards the lower throat. In all other characters, notably the dark warbler green back with heavy dusky spots, the three individuals are typically *capitalis*. A single male from Pun and another from Papallacta are more heavily spotted above, and duller (between sulphine yellow and pyrite yellow) underneath than any other example we have examined, but we do not consider these divergencies of sufficient importance to justify their formal separation. Birds from the mountains bordering the Marañón

Zool. Soc. Lond., 1879, p. 230—Tambillo, Peru; idem, l.c., 1880, p. 199—Cutervo, Peru; idem, l.c., 1882, p. 17—Chirimoto, Peru (eggs descr.); Berlepsch and Taczanowski, l.c., 1884, p. 294—part, Cechce, Chimborazo, Ecuador; idem, l.c., 1885, p. 85—Mapoto, Ecuador; Taczanowski, Orn. Pér., 3, p. 49, 1886—part, Tambillo and Cutervo, Peru; Salvin, Nov. Zool., 2, p. 7, 1895—Cajamarca, Chusgon, and Succha (Huamachuco), Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 27, 1899—Cuenca, "Nanegal," Tumbaco (Quito), and Pun, Ecuador (crit.).

*Chrysomitris icterica* (not *Fringilla icterica* Lichtenstein) Sclater, Proc. Zool. Soc. Lond., 26, p. 552, 1858—Riobamba, Ecuador; idem, Cat. Coll. Amer. Bds., p. 125, 1862—part, spec. c-e, Riobamba and Cuenca, Ecuador.

*Chrysomitris icterica* subsp. *a* *Chrysomitris capitalis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 219, 1888—part, spec. m-p, Ecuador ("Jima," "Sical," "Intac," Quito) and Colombia (Pasto).

*Chrysomitris sclateri* Sharpe, Cat. Bds. Brit. Mus., 12, p. 200, 1888—Riobamba and Cuenca, Ecuador (type, from Riobamba, in British Museum examined).

*Chrysomitris icterica capitalis* Hartert, Nov. Zool., 5, p. 484, 1898—Ibarra, Ecuador; Goodfellow, Ibis, 1901, p. 475—Quito and the Chillo Valley, Ecuador.

*Chrysomitris* sp. Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 28, 1899—La Concepción, Chota Valley, Ecuador (young).

*Spinus ictericus capitalis* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B78, 1911—Tumbaco and Santa Rosa, Ecuador; idem, Rev. Franç. d'Orn., 2, p. 390, 1912—Baños, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 76, 1928—Volcan de Tumbaco, Ecuador.

*Spinus capitalis* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 79, 1922—Quito, Cumbaya, and Chaupieruz, Ecuador; Todd, Ann. Carnegie Mus., 17, p. 37, 1926—part, Temperate zone of Ecuador (monog.); Chapman, Bull. Amer. Mus. N. H., 55, p. 621, 1926—Ecuador (Nono, Pichincha, near Quito, Cumbaya, Papallacta, Mocha, Chimborazo, Cuenca); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 627, 1932—Las Palmas and Cuenca, Ecuador.

*Chrysomitris siemiradzkii* (errore) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 313—Cuenca, Ecuador (spec. examined).

*Range*.—Temperate zone of extreme southern Colombia (Pasto), Ecuador, and northwestern Peru south to Cajamarca (Cajamarca, Chusgon, Huamachuco).

Valley (Maynapall and Chusgon, near Huamachuco) we are unable to satisfactorily distinguish from those of the Ecuadorian highlands. The specimens from southern Peru and Chile referred by Todd to *capitalis* belong, in my opinion, to other races. The female of *S. m. capitalis*, as represented by a series from Ecuador, is fairly uniform by reason of its dull (grayish) green upper, and grayish-white under parts, but similarly colored examples also occur in the range of *peruanus* and *urubambensis*.

*Additional material examined*.—Ecuador: near Quito, 6; Tumbaco, 3; La Concepción, 1; "Nanegal," 2; Mount Chimborazo, 1; Pichincha, 4; Mocha, 2; Cechce, 1; Govinda, 1; Cuenca, 2; Riobamba, 2; Pun, 2; Papallacta, 1; unspecified, 4.—Peru: Chusgon, Huamachuco, 2.

2: Peru (Maynapall, near Huamachuco, 2).

**\**Spinus magellanicus paulus* Todd.<sup>1</sup> PACIFIC SISKIN.**

*Spinus peruanus paulus* Todd, Ann. Carnegie Mus., 17, p. 51, June 9, 1926—Zamora, Loja, Ecuador (type in the American Museum of Natural History, New York, examined); Chapman, Bull. Amer. Mus. N. H., 55, p. 621, 1926—Ecuador (Pallatanga, Bucay, Porto Velo, El Paso, Alamor, Loja, Zamora) and northwestern Peru (Milagros, Palambra, Huancabamba).

*Chrysomitris capitalis* (not of Cabanis) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 985—Islay and Arequipa, Peru; idem, l.c., 1868, p. 569—western Peru; Taczanowski, l.c., 1874, p. 522—part, Lima; Berlepsch and Taczanowski, l.c., 1884, p. 294—part, Cayandeled, Ecuador; Taczanowski, Orn. Pér., 3, p. 49, 1886—part, Lima; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 377—Lima and Ica, Peru.

*Chrysomitris barbata* (not *Fringilla barbata* Molina) Salvin, Proc. Zool. Soc. Lond., 1883, p. 422—Callao, Peru.

*Chrysomitris icterica* subsp. *a* *Chrysomitris capitalis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 219, 1888—part, spec. a-g, i, k, Peru (Arequipa, Islay, Callao).

*Spinus ictericus peruanus* (not of Berlepsch and Stolzmann) Bangs and Noble, Auk, 35, p. 46, 1918—Bellavista(?) and Huancabamba, Peru (crit.).

*Spinus peruanus peruanus* Todd, Ann. Carnegie Mus., 17, p. 48, 1926—part, Pacific coast of Peru.

*Spinus magellanicus paulus* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 467, 1930—Santa Eulalia and Vitarte, Peru (crit.).

**Range.**—Tropical and Subtropical zones of the Pacific slope of southwestern Ecuador and Peru from Piura (east to Huancabamba) south to Arequipa.

8: Peru (Trujillo, 1; Macate, Ancachs, 3; Santa Eulalia, Lima, 2; Vitarte, Lima, 1; Matucana, Lima, 1).

<sup>1</sup> *Spinus magellanicus paulus* Todd: Similar to *S. m. capitalis*, but smaller, with slenderer bill; back brighter, more yellowish citrine, and less variegated with dusky; rump brighter yellow; under parts brighter yellow without any buffy whitish color in the anal region; similar also to *S. m. peruanus*, but decidedly paler yellow below, the back more yellowish green, and the rump brighter yellow; female not certainly distinguishable from that of *S. m. peruanus*.

Birds from the lowlands of southwestern Ecuador, including the type, are decidedly small in comparison to *S. m. capitalis*, of the Temperate zone of the Ecuadorian Andes. Those from the Pacific slope of Peru average slightly larger (wing of males, 65–69, against 61–66), but do not differ in coloration. I am in agreement with Mr. Zimmer that they have to go with *paulus* rather than with *peruanus* to which they had been referred by Mr. Todd. The intergradation between *S. m. paulus*, *S. m. peruanus*, and *S. m. urubambensis* has been discussed at some length by Mr. Zimmer (l.c., pp. 465–466).

**Additional material examined.**—Ecuador: Pallatanga, 2; Cayandeled, 1; Jalancay, Chunchi, Chimbo, 1; Zamora, 3; El Paso, 4.—Peru: Huancabamba, Piura, 4; Huacho, Lima, 4; Huaral, Lima, 4; Lima, 6; Ica, 1; Islay, Arequipa, 1; Cocachacra, Arequipa, 3.

**\**Spinus magellanicus peruanus* Berlepsch and Stolzmann.<sup>1</sup>**  
PERUVIAN SISKIN.

*Spinus ictericus peruanus* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 352—La Merced, Chanchamayo, and Garita del Sol, Vitoc, Dept. Junín, Peru (type, from La Merced, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 170, 1927); idem, Orn. 13, p. 111, 1906—Huaynapata, Marcapata, Cuzco, Peru; Chapman, Bull. U. S. Nat. Mus., 115, p. 110, 1921—part, San Miguel Bridge, Urubamba, Peru (crit.).

*Chrysomitris capitalis* (not of Cabanis) Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 597—Cosnipata, Cuzco, Peru; Taczanowski, l.c., 1874, p. 522—part, Huanta (Ayacucho) and Ropaybamba (Junín), Peru; idem, Orn. Pér., 3, p. 49, 1886—part, Huanta, Ropaybamba, Amable Maria, Pumamarca, and Palca, Peru.

*Chrysomitris icterica* subsp. *a* *Chrysomitris capitalis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 219, 1888—part, spec. h, Ropaybamba, Peru.

*Spinus peruanus peruanus* Todd, Ann. Carnegie Mus., 17, p. 48, 1926—part, eastern Peru.

*Spinus magellanicus peruanus* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 465, 1930—Vista Alegre, Chinchao, and Huánuco, Peru (crit.).

*Spinus sclateri* (?) (not *Chrysomitris sclateri* Sharpe) Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 353—Garita del Sol, Peru.

*Range*.—Tropical and Subtropical zones of eastern Peru from Huánuco through Junín and Ayacucho to Cuzco.

6: Peru (Vista Alegre, 2; Chinchao, 2; Huánuco, 2).

**\**Spinus magellanicus urubambensis* Todd.<sup>2</sup>** URUBAMBA  
SISKIN.

*Spinus magellanicus urubambensis* Todd, Ann. Carnegie Mus., 17, p. 65, June 9, 1926—Cuzco, Dept. Cuzco, Peru (type in the American Museum

<sup>1</sup> *Spinus magellanicus peruanus* Berlepsch and Stolzmann, in the male sex, comes pretty close to *S. m. paulus*, but differs by brighter as well as deeper yellow under parts, somewhat darker and more greenish back, and duller yellow rump. Wing (males), 67–70; tail, 42–45.

Birds from La Merced (topotypical), Utcuyacu (alt. 4,800 ft.), and Vista Alegre agree well together. Two males each from Garita del Sol and Chipa (12,000 to 14,000 ft. elev.) likewise belong here. An adult male from Chinchao, Huánuco, is exactly intermediate between *peruanus* and *capitalis*, so much so indeed that its reference to one form rather than to the other is largely a matter of personal preference. The whitish-bellied female from Garita del Sol, referred by Berlepsch tentatively to *S. sclateri* and by Todd to *capitalis*, is clearly but an individual variant of *peruanus*. Similar variation occurs also in *S. m. urubambensis*. We have not seen any material of this form from south of Junín, though Todd extends its range to the Marcapata Valley.

*Additional material examined*.—Peru: La Merced, Chanchamayo, 7; Garita del Sol, Vitoc, 4; Utcuyacu, Junín, 3; Chipa, Junín, 3.

<sup>2</sup> *Spinus magellanicus urubambensis* Todd differs from *S. m. peruanus* merely by its larger size. Wing, 73–78, (female) 70–74; tail, 48–52, (female) 45–48½.

This is apparently an altitudinal representative of *S. m. peruanus* in the Temperate zone of the Andes of southern Peru. Birds from Tacna Province, Chile, agree

of Natural History, New York, examined); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 82, 1932—Putre and Palca, Tacna, Chile (crit.).

(?) *Spinus sclateri* (not *Chrysomitris sclateri* Sharpe) Berlepsch and Stolzmann, Ornith., 13, p. 68, 1906—Pauza and Coracora, Ayacucho.

*Spinus ictericus peruanus* (not of Berlepsch and Stolzmann) Chapman, Bull. U. S. Nat. Mus., 115, p. 110, 1921—part, Chospiyoc, Ttica-Ttica, Cuzco, Pisac, and La Raya, Urubamba, Peru (crit.).

*Spinus capitalis* (not *Chrysomitris capitalis* Cabanis) Todd, Ann. Carnegie Mus., 17, pp. 37, 39, 1926—part, Putre, Tacna, and (?) Coracora and Pauza, Peru.

*Range*.—Temperate zone of extreme northern Chile (Tacna) and southern Peru (depts. of Cuzco, Junín, and possibly Ayacucho).

2: Chile (Putre, Tacna, 2).

**\**Spinus magellanicus bolivianus* (Sharpe).<sup>1</sup> BOLIVIAN SISKIN.**

*Chrysomitris ictericus* subsp.  $\beta$  *Chrysomitris boliviana* Sharpe, Cat. Bds. Brit. Mus., 12, p. 220, 1888—Bolivia (type in British Museum examined).

*Chrysomitris barbata* (not *Fringilla barbata* Molina) Sclater, Cat. Coll. Amer. Bds., p. 125, 1862—part, spec. a, Bolivia.

*Spinus magellanicus bolivianus* Todd, Ann. Carnegie Mus., 17, p. 64, 1926—highlands of Bolivia (monog.).

*Range*.—Temperate zone of central Bolivia, in depts. of Cochabamba, Chuquisaca, and Potosí.

4: Bolivia (Arque, Cochabamba, 1; Parotani, Cochabamba, 3).

with the typical series from the Cuzco region. Three adults in worn plumage taken by R. H. Beck at Oroya, Rio Mantaro, on the Junín plateau, in March, 1913, seem to be inseparable! A single adult female from Coracora, Ayacucho, with a wing of 73<sup>1</sup>/<sub>2</sub>, and a tail of 48<sup>1</sup>/<sub>2</sub> mm., falls well within the measurements of *urubambensis*, but without further material it is, of course, impossible to allocate it with absolute certainty. While clearly distinct from *S. m. peruanus*, this form shows some analogy to the widely distant *S. m. capitalis*, of the Ecuadorian highlands, thereby demonstrating the conspecific relationship of all the Andean black-hooded siskins. It is exceedingly close to *S. m. bolivianus*, from which it seems to differ only by slightly brighter, more yellowish green dorsal surface.

*Additional material examined*.—Peru: Cuzco, 3; Ttica-Ttica, 3; Pisac, 3; Oroya, Rio Mantaro, Junín, 3.—Chile: Palca, Tacna, 1.

<sup>1</sup> *Spinus magellanicus bolivianus* (Sharpe): Similar to *S. m. alleni*, but much larger. Wing, 73–76, (female) 71–73; tail, 47–51, (female) 45–47.

All the specimens we have seen of this form are from the central Bolivian highlands of Cochabamba and Sucre, the type agreeing with males from that region. The single specimen from Chaco, Yungas of La Paz, identified by Todd as *S. m. bolivianus*, is before me. It is a male in juvenile plumage with a few black feathers appearing on the lower throat and pileum, and without knowing the adult stage it cannot be determined with any degree of confidence.

*Additional material examined*.—Bolivia: Cochabamba, 2; Vinto, Cochabamba, 3; Pulque, Sucre, 3; unspecified, 3.

**\**Spinus magellanicus tucumanus* Todd.<sup>1</sup> TUCUMÁN SISKIN.**

*Spinus magellanicus tucumanus* Todd, Ann. Carnegie Mus., 17, p. 62, June 9, 1926—Lavalle, Santiago del Estero, Argentina (type in the American Museum of Natural History, New York); Friedmann, Bull. Mus. Comp. Zool., 68, p. 236, 1927—Concepción, Tucumán; Deautier, El Hornero, 4, pp. 186, 187, 1928 (range); Barros, Rev. Chil. Hist. Nat., 34, p. 319, 1930—Las Cuevas and Las Lefías, Cordillera of Mendoza.

*Chrysomitris magellanica* (not *Fringilla magellanica* Vieillot) Burmeister, Journ. Orn., 6, p. 160, 1858—Mendoza; Salvin, Ibis, 1880, p. 355—Salta; Koslowsky, Rev. Mus. La Plata, 6, p. 279, 1895—Chilecito, La Rioja.

*Chrysomitris barbata* (not *Fringilla barbata* Molina) White, Proc. Zool. Soc. Lond., 1882, p. 600—part, Sierra de Totoral, Catamarca.

*Chrysomitris icterica* (not *Fringilla icterica* Lichtenstein) Sharpe, Cat. Bds. Brit. Mus., 12, p. 217, 1888—part, spec. b-g, "Chile" [= Mendoza], Salta, and Córdoba (Cosquin); Sclater and Hudson, Arg. Orn., 1, p. 64, 1888—Argentina (in part); Frenzel, Journ. Orn., 39, p. 120, 1891—Córdoba; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 7, 1895—part, spec. e-f, San Pablo, Tucumán, and Chilchas, Salta; idem, l.c., 12, No. 292, p. 10, 1897—Campo Santo, Salta; Baer, Ornith., 12, p. 216, 1904—Santa Ana, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 255, 1904—Rosario de Lerma, Salta; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—cerros de Tucumán.

*Chrysomitris magellanica (icterica)* Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Córdoba.

*Carduelis icterica icterica* Hartert and Venturi, Nov. Zool., 16, p. 176, 1909—part, Tucumán and (?)Mocoví, Santa Fé.

*Spinus ictericus ictericus* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 387, 1910—part, western Argentina (Salta to Córdoba).

*Spinus ictericus* Sanzin, El Hornero, 1, p. 152, 1918—Mendoza; Giacomelli, l.c., 3, p. 69, 1923—La Rioja; Wetmore, Bull. U. S. Nat. Mus., 133, p. 433, 1926—part, El Salto, above Potrerillos, Mendoza; (?)Wilson, El Hornero, 3, p. 361, 1926—General López, Santa Fé; Castellanos, l.c., 5, p. 320, 1934—Valle de los Reartes, Córdoba.

**Range.**—Western Argentina, from Jujuy south to Mendoza, east to the Sierra of Córdoba and (?)Santa Fé; in winter occasionally to Buenos Aires (Quilmes).

**9: Argentina (Concepción, Tucumán, 9).**

<sup>1</sup> *Spinus magellanicus tucumanus* Todd: Very close to *S. m. bolivianus*, but on average slightly smaller; adult male with upper parts, especially wing and tail coverts uniform warbler green without any, or with very little, dusky spotting; female not distinguishable with certainty except for being smaller. Wing, 70–76, (female) 66–69; tail, 45–49, (female) 43–46.

Though readily separable from *S. m. magellanicus* by duller coloration (green of upper parts duller with less yellow on the rump; under surface and sides of neck duller, etc.), as pointed out by its describer, this form runs pretty close to *bolivianus*, and certain individuals are distinguishable only with difficulty. No material being available from Santa Fé, the breeding form of that region remains in doubt. According to Todd, *S. m. tucumanus* migrates in winter to the coast of Buenos Aires.

Four additional specimens from Tucumán (Tafi, San Pablo) and two from Salta examined.



**\**Spinus magellanicus alleni* Ridgway.<sup>1</sup> ALLEN'S SISKIN.**

*Spinus alleni* Ridgway, Auk, 16, p. 37, Jan., 1899—Chapada, Matto Grosso (type in the American Museum of Natural History, New York).

*Fringilla magellanica* (not of Vieillot) Wied, Reise Bras., 2, p. 178, 1821—near Ressaque, Bahia-Minas boundary; idem, Beitr. Naturg. Bras., 3, (1), p. 620, 1830—Bahia.

*Carduelis magellanica* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 83, 1837—Chiquitos, Bolivia (spec. in Paris Museum examined).

*Chrysomitris magellanica* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 607—Chiquitos (ex d'Orbigny).

*Chrysomitris icterica* (not *Fringilla icterica* Lichtenstein) Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 403—part, Catalão, Goyáz; Salvin, Ibis, 1885, p. 217—part, Bahia, Brazil; Sharpe, Cat. Bds. Brit. Mus., 12, p. 217, 1888—part, spec. o, p, Bahia (spec. examined); Kerr, Ibis, 1892, p. 126—Fortín Page, lower Pilcomayo, Paraguayan Chaco.

*Spinus yarrelli* (not *Carduelis yarrellii* Audubon) Allen, Bull. Amer. Mus. N. H., 3, p. 375, 1891—Chapada, Matto Grosso.

*Spinus ictericus alleni* Hellmayr, Nov. Zool., 15, p. 33, 1908—Rio Thesouras and Rio Araguaya, Goyáz (crit., range); Pinto, Rev. Mus. Paul., 17, (2), p. 792, 1932—Tres Lagôas and Aquidauana, Matto Grosso (crit.).

*Chrysomitris icterica alleni* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—part, spec. Nos. 704, 751, Parnaguá, Piahy (spec. examined).

*Spinus magellanicus alleni* Todd, Ann. Carnegie Mus., 17, p. 52, 1926—Brazil, eastern Bolivia, and adjacent parts of Paraguay (excl. of Bernalcué) and Argentina (monog.); Deautier, El Hornero, 4, pp. 186, 187, 1928—Chaco and Formosa, Argentina; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 297, 1929—Certeza, Goyáz; Naumburg, Bull. Amer. Mus. N. H., 60, p. 352, 1930—Matto Grosso.

**Range.**—Campo region of central Brazil, from southern Piahy (Parnaguá) and Bahia west through Goyáz (Certeza, Rio Perdido; Rio Thesouras; Leopoldina, Rio Araguaya; Catalão) to northern São Paulo (Baurú) and Matto Grosso (Tres Lagôas, Aquidauana, Chapada, Estiva, Piraputanga), and eastern Bolivia (west to the eastern base of the Andes at Santa Cruz), and the adjoining parts of Paraguay (west of the Rio Paraná) and northern Argentina (Chaco).

<sup>1</sup> *Spinus magellanicus alleni* Ridgway: Similar to *S. m. ictericus*, but smaller; adult males with yellow of under parts brighter and clearer, and the yellow basal area of the tail less extensive; female brighter and clearer yellow below without the olivaceous shade on throat and chest. Wing, 63–69, (female) 64; tail, 38–45; (female) 40–41; bill, 9½–11.

Birds from Chiquitos, Bolivia, agree with others from Brazil, but seem to have slightly shorter tails. I have not seen any material from the Paraguayan or Argentine Chaco which Todd refers to the present form. Specimens from eastern Paraguay (Bernalcué, Sapucay) pertain unquestionably to *S. m. ictericus*.

**Additional material examined.**—Brazil: Parnaguá, Piahy, 2; Bahia, 2; Chapada, Matto Grosso, 2; Estiva, Matto Grosso, 1; Rio Thesouras, Goyáz, 1; Rio Araguaya (Leopoldina), Goyáz, 1.—Bolivia: Chiquitos, 3.

3: Brazil (Baurú, São Paulo, 1; Certeza, Goyáz, 1; Piraputanga, Matto Grosso, 1).

**\**Spinus magellanicus ictericus* (Lichtenstein).<sup>1</sup> BRAZILIAN SISKIN.**

*Fringilla icterica* Lichtenstein, Verz. Doubl. Berliner Mus., p. 26, after Sept., 1823—São Paulo, Brazil (type in Berlin Museum).

*Fringilla campestris* (not of Schrank, 1789) Spix, Av. Spec. Nov. Bras., 2, p. 48, pl. 61, fig. 3 (young male), 1825—"in campis districti adamantini" = Minas Geraes, Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 680, 1906).

*Carduelis ictericus bavarici* Collin and Hartert, Nov. Zool., 34, p. 50, 1927—new name for *Fringilla campestris* Spix, preoccupied.

*Chrysomitris magellanica* (not *Fringilla magellanica* Vieillot) Bonaparte, Consp. Gen. Av., 1, (2), p. 516, 1850—São Paulo; Cabanis, Mus. Hein., 1, p. 160, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 255, 1856—Lagõa Santa and Congonhas, Minas Geraes (spec. examined); Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 92—part, southern Brazil.

*Chrysomitris icterica* Sclater, Cat. Coll. Amer. Bds., p. 125, 1862—part, spec. a, b, Brazil; Pelzeln, Orn. Bras., 3, p. 231, 1870—São Paulo (Mattodentro, Ypanemá, Jaguaraiaba, Itararé); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 403—part, Minas Geraes (Lagõa Santa and Olleria); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 124, 1885—Taquara do Mundo Novo, Rio Grande do Sul; Sharpe, Cat. Bds. Brit. Mus., 12, p. 217, 1888—part, spec. l-n, "Pelotas," Rio Grande do Sul, and São Paulo; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 7, 1895—part, spec. a-d, Paraguay (Luque, Villa Rica, Colonia Risso); Ihering, Anuario Est. Rio Grande do Sul, 16, p. 120, 1899—Rio Grande do Sul (Mundo Novo, Barra do Rio Camaquã, Pedras Brancas); idem, Rev. Mus. Paul., 3, p. 23, 1899—São Paulo (Iguapé); Chubb, Ibis, 1910, p. 635—Sapucay, Paraguay.

*Chrysomitris barbata* (not *Fringilla barbata* Molina) White, Proc. Zool. Soc. Lond., 1882, p. 600—part, Concepción, Misiones, and Santo Tomé, Corrientes (spec. examined).

<sup>1</sup> *Spinus magellanicus ictericus* (Lichtenstein): Very close to *S. m. magellanicus*, but distinguishable by slightly smaller size, less extensive black gular patch, and absence of the buffy whitish area in the middle of the lower abdomen in the male sex. The wing, in adult males, ranges from 67 to 72 mm. Birds from eastern Paraguay (Bernalcué, near Asunción; Villa Rica; Sapucay) and Misiones, and a single male from Santo Tomé, northeastern Corrientes, agree precisely with Brazilian individuals. Since writing about the type of *F. campestris*, I have carefully examined six adult males from Minas Geraes and find them to be unquestionably referable to *ictericus*, though one from Congonhas slightly verges toward *S. m. alleni*. Besides, Spix's term *campestris* is preoccupied anyway, having been previously used by Schrank.

*Additional material examined*.—Brazil: Lagõa Santa, Minas Geraes, 2; Congonhas, Minas Geraes, 1; Rio de Janeiro, 4; Ypanemá, São Paulo, 10; Mattodentro, São Paulo, 3; Itararé, São Paulo, 1; Jaguaraiaba, São Paulo, 1; Roça Nova, Serra do Mar, Paraná, 2; Taquara, Rio Grande do Sul, 3; Rio Grande do Sul, 4.—Paraguay: Sapucay, 1; Villa Rica, 2; Bernalcué, 1.—Argentina: Concepción, Misiones, 1; Bonpland, Misiones, 2; Santo Tomé, Corrientes, 1.

*Spinus ictericus* Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 186, 1906—Retiro do Ramos, Serra do Itatiaya; Ihering, Cat. Faun. Braz., 1, p. 380, 1907—São Paulo (Jundiahy, Itararé, Itatiba), Minas Geraes (Campos de Itatiaya), and Rio Grande do Sul (Novo Hamburgo); Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 357, 1909—Serra do Itatiaya (habits); Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Retiro do Ramos, Itatiaya; Velho, l.c., p. 263, 1923—Monte Serrat, Itatiaya, Brazil.

*Spinus magellanicus ictericus* Todd, Ann. Carnegie Mus., 17, p. 54, 1926—southern Brazil, eastern Paraguay, and Misiones (monog.); Deautier, El Hornero, 4, pp. 185, 187, 1928 (range).

*Spinus ictericus ictericus* Holt, Bull. Amer. Mus. N. H., 57, p. 316, 1928—Serra do Itatiaya, Brazil.

*Spinus ictericus campestris* Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 680, 1906—Minas Geraes (crit.).

*Cardueles* [sic] *icterica* Bertoni, Faun. Parag., p. 63, 1914—Alto Paraná, Paraguay.

*Range*.—Southeastern Brazil, from Minas Geraes and Rio de Janeiro south to Rio Grande do Sul, and the adjacent parts of Paraguay (east of the Rio Paraná) and extreme northeastern Argentina (Misiones and the adjoining section of Corrientes).

5: Brazil (Joinville, Santa Catharina, 1; Rio das Velhas, near Lagõa Santa, Minas Geraes, 4).

### ***Spinus magellanicus magellanicus* (Vieillot). ARGENTINE SISKIN.**

*Fringilla magellanica* Vieillot, Hist. Nat. Ois. Chant. Zône Torr., pl. 30, circa 1805—"la partie méridionale de l'Amérique... et encore aux environs du détroit de Magellan" (errore); type locality, as designated by Todd (1926, p. 61), Buenos Aires.<sup>1</sup>

*Chrysomitris magellanica* Darwin, Zool. Beagle, 3, Birds, p. 97, 1841—Uruguay (Maldonado) and Rio Negro; Cabanis, Journ. Orn., 14, p. 161, 1866—Montevideo and Buenos Aires (crit.); Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, southern Corrientes; Durnford, Ibis, 1876, p. 159—Ranchos, Buenos Aires; Gibson, Ibis, 1880, p. 30—Cape San Antonio, Buenos Aires (nest and eggs).

*Chrysomitris barbata* (not *Fringilla barbata* Molina) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 140—Conchitas, Buenos Aires; Hudson, l.c., 1870, p. 549—Buenos Aires; Durnford, Ibis, 1877, p. 172—Baradéro, Buenos Aires; Doering, in Roca, Inf. Of. Exp. Rio Negro, 1, Zool., p. 40,

<sup>1</sup> Although the habitat ascribed to the species is incorrect, since no other siskin than *S. barbatus* occurs in the Straits of Magellan, Vieillot's figure clearly represents a member of the black-headed group and, as has been explained by Cabanis and more recently again by Todd, corresponds fairly well to the Argentine form, which was already met with near Buenos Aires by the traveller Commerson, as quoted by Montbeillard (in Buffon, Hist. Nat. Ois., 4, p. 402) in the account of "L'Olivarez." The type, it may be added, does not exist in the collections of the Paris Museum.

1881—Rio Sauce, Rio Colorado, and Rio Negro; Barrows, Bull. Nutt. Orn. Cl., 8, p. 132, 1883—Concepción del Uruguay, Entre Ríos, and Buenos Aires; Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 83, 1884—Tandil, Buenos Aires.

*Chrysomitris icterica* (not *Fringilla icterica* Lichtenstein) Sharpe, Cat. Bds. Brit. Mus., 12, p. 217, 1888—part, spec. h-k, Buenos Aires, Conchitas, and Campana; Sclater and Hudson, Arg. Orn., 1, p. 64, 1888—part, eastern Argentina; Kerr, Ibis, 1890, p. 361—Est. Mate Grande, near Nueva de Julio, Buenos Aires; Holland, l.c., 1891, p. 16; idem, l.c., 1892, p. 197—Estancia Espartillar, Buenos Aires; Aplin, l.c., 1894, p. 170—Santa Elena, Uruguay (habits); Grant, l.c., 1911, p. 101—Los Yngleses and Luiconia, Buenos Aires (nest and eggs); Gibson, l.c., 1918, p. 388—Cape San Antonio, Buenos Aires.

*Spinus ictericus* Tremoleras, El Hornero, 2, p. 23, 1920—Uruguay (Montevideo, Canelones, Colonia, San José, Florida); Renard, l.c., 2, p. 60, 1920—Cañuelas, Buenos Aires; Daguerre, l.c., 2, p. 271, 1922—Rosas, Buenos Aires; Pereyra, l.c., 3, p. 171, 1923—Escobar, Buenos Aires; Wetmore, Bull. U. S. Nat. Mus., 133, p. 433, 1926—part, Buenos Aires (Dolores, Lavalle) and Uruguay (San Vicente); Smyth, El Hornero, 4, p. 149, 1928—Cacharí, Buenos Aires (egg).

*Spinus ictericus ictericus* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 387, 1910—part, eastern Argentina; Hussey, Auk, 33, p. 397, 1916—La Plata; Marelli, Mem. Minist. Obr. Públ. for 1922–23, p. 658, 1924—Buenos Aires Province; idem, El Hornero, 5, p. 197, 1933—Dorrego and Fortín Chaco, southern Buenos Aires.

*Carduelis icterica icterica* Hartert and Venturi, Nov. Zool., 16, p. 176, 1909—part, Barracas al Sud, Buenos Aires.

*Spinus magellanicus magellanicus* Todd, Ann. Carnegie Mus., 17, p. 58, 1926—Argentina (monog.); Deautier, El Hornero, 4, pp. 185, 187, 1928 (range in Argentina).

*Range*.—Eastern Argentina, from Entre Ríos and Buenos Aires south to the Rio Negro, and Uruguay.<sup>1</sup>

**\**Spinus magellanicus longirostris* (Sharpe).<sup>2</sup> RORAIMA SISKIN.**

*Chrysomitris icterica* subsp.  $\gamma$  *Chrysomitris longirostris* Sharpe, Cat. Bds. Brit. Mus., 12, p. 220, 1888—Roraima, British Guiana (type in British Museum).

*Chrysomitris icterica* (not *Fringilla icterica* Lichtenstein) Salvin, Ibis, 1885, p. 217—Roraima.

<sup>1</sup> Ten specimens from Buenos Aires and two from Uruguay (Montevideo) examined.

<sup>2</sup> *Spinus magellanicus longirostris* (Sharpe): Similar to *S. m. ictericus*, but decidedly smaller, with somewhat longer, slenderer bill; dorsal surface of adult males more yellowish green with hardly a trace of the dusky mottling, and under parts brighter yellow without any olivaceous shading across chest and along flanks. Wing (males), 60–68; tail, 37–40; bill, 11.

*Additional material examined*.—British Guiana: Roraima, 8.

*Spinus longirostris* Todd, Ann. Carnegie Mus., 17, p. 44, 1926—Roraima (monog.).

*Range*.—Tropical zone of British Guiana (Roraima, Quonga).

1: British Guiana (Quonga, 1).

***Spinus santaecrucis* Todd.<sup>1</sup> SANTA CRUZ SISKIN.**

*Spinus santaecrucis* Todd, Ann. Carnegie Mus., 17, p. 47, June 9, 1926—Samaipata, Santa Cruz, Bolivia (type in the Carnegie Museum, Pittsburgh).

*Range*.—Tropical zone of the Department of Santa Cruz, Bolivia.

***Spinus siemiradzkii* (Berlepsch and Taczanowski).<sup>2</sup> SIEMIRADZKI'S SISKIN.**

*Chrysomitris siemiradzkii* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 551, pl. 50—Guayaquil (type in coll. of H. von Berlepsch, now in Senckenberg Museum, Frankfurt, examined);<sup>3</sup> idem, l.c., 1884, p. 282—Guayaquil; (?) Taczanowski, Orn. Pér., 3, p. 50, 1886—Tumbez, Peru (sight record).

*Chrysomitris icterica* subsp. ♂ *Chrysomitris siemiradzkii* Sharpe, Cat. Bds. Brit. Mus., 12, p. 221, 1888—"Balzar," Ecuador.

*Spinus siemiradzkii* Todd, Ann. Carnegie Mus., 17, p. 43, 1926—Guayaquil and Puna Island, Ecuador (monog.); Chapman, Bull. Amer. Mus. N. H., 55, p. 622, 1926—Puna Island, Ecuador.

*Range*.—Arid Tropical zone of southwestern Ecuador (Guayaquil and Puna Island).

<sup>1</sup> *Spinus santaecrucis* Todd: Similar to *S. magellanicus bolivianus*, but decidedly smaller; adult male with the dorsal feathers extensively blackish in the center and narrowly margined with light olive-green, and the upper tail coverts also largely blackish with greenish edges. Wing (male), 70; tail, 44.

A single adult male from Holguin, Santa Cruz, differs indeed strikingly by the above characters from a small series of *S. m. bolivianus*, from the highlands of Cochabamba. An immature male, with the black hood already largely developed, from Santa Cruz, is much less spotted above, being hardly different on this score from *bolivianus*, but has no yellow at all on the rump. These two specimens look almost like a connecting link between *S. m. alleni*, of Chiquitos, and *S. m. bolivianus*, of Cochabamba, but according to Todd, who does not seem to be very confident as to their taxonomic status, *alleni* and *santaecrucis* both occur at Santa Cruz, Buena Vista, and Rio Surutú! The case obviously requires renewed investigation with the help of more adequate material.

<sup>2</sup> *Spinus siemiradzkii* (Berlepsch and Taczanowski), in spite of its bright yellowish coloration, which is indicated, though to a lesser degree, even in the female sex, may ultimately prove to be a geographic representative of *S. magellanicus*. It appears to be restricted to the arid tropical region around Guayaquil, including Puna Island. Stolzmann's sight record from "Tumbez" needs corroboration by actually secured material. The locality "Balzar" attached to a skin by Illingworth, a native collector in the service of Clarence Buckley, is no doubt due to a confusion of labeling, this man having also visited Puna Island.

*Material examined*.—Ecuador: Guayaquil, 3 (two males, one female).

<sup>3</sup> The specimen in the Warsaw Museum listed by Sztolzman and Domaniewski (Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 170, 1927) as "type" has no valid claims to this dignity, the marked type being still in the Berlepsch Collection at Frankfurt.

**\**Spinus olivaceus* Berlepsch and Stolzmann.<sup>1</sup> OLIVACEOUS SISKIN.**

*Spinus olivaceus* Berlepsch and Stolzmann, Ibis, (6), 6, p. 387, July, 1894—Garita del Sol, Vitoc, Dept. Junín, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 170, 1927); idem, Proc. Zool. Soc. Lond., 1896, p. 353—Garita del Sol; Todd, Ann. Carnegie Mus., 17, p. 46, 1926—eastern Ecuador to Bolivia (monog.); Chapman, Bull. Amer. Mus. N. H., 55, p. 622, 1926—Zamora, eastern Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 468, 1930—Vista Alegre, Huánuco, Peru.

*Range*.—Subtropical zone of eastern Ecuador (Zamora), eastern Peru (Huayabamba, Dept. San Martín; Vista Alegre, Dept. Huánuco; Garita del Sol, Vitoc, Dept. Junín; Marcapata, Dept. Cuzco), and northern Bolivia (Songo and San Antonio, Yungas of La Paz; Yungas of Cochabamba).

2: Peru (Vista Alegre, Huánuco, 2).

**\**Spinus notatus*<sup>2</sup> *notatus* (Du Bus). BLACK-HEADED SISKIN.**

*Carduelis notata* Du Bus, Bull. Acad. Sci., Lettr. et Beaux Arts Belg., 14, (2), p. 106, Aug., 1847—Mexico=Jalapa, Vera Cruz<sup>3</sup> (type in Brussels Museum).

*Chrysomitris notata* Sclater, Proc. Zool. Soc. Lond., 24, p. 304, 1856—Orizaba, Vera Cruz; idem, l.c., 26, p. 303, 1858—Orizaba; idem, l.c., 27, pp. 365, 380, 1859—Jalapa, Vera Cruz, and La Parada and Totontepec, Oaxaca; Sclater and Salvin, Ibis, 1860, p. 275—Volcan de Fuego and Coban, Guatemala; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 92—Mexico (crit.); Lawrence, Bull. U. S. Nat. Mus., 4, p. 22, 1876—Gineta Mountains, Chiapas; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 428, 1886—Mexico (Vera Cruz, Oaxaca, Chiapas) and Guatemala; Sharpe,

<sup>1</sup> *Spinus olivaceus* Berlepsch and Stolzmann: Adult male superficially resembling *S. magellanicus peruanus*, but with proportionately and absolutely much shorter tail; upper parts decidedly darker, deep warbler green tinged with citrine; the yellow of the rump generally less contrasted with the color of the back; the terminal edges to the tertials much narrower and less conspicuous, in fresh plumage grayish green instead of clear yellowish white; chest, sides, and flanks strongly tinged with olivaceous. Wing, 63½–66; tail, 35–38; bill, 9–10. Female unknown to the author.

The short tail, the inconspicuous edging to the innermost secondaries, and the olivaceous-tinged under parts are the best characters to tell this siskin from its allies. Birds from the Yungas of La Paz appear to be similar to others from Peru. *S. olivaceus* evidently is specifically different from the *S. magellanicus* group, being found side by side with races of the Magellanic Siskin (*S. m. peruanus* and *S. m. urubambensis*) in part of its range.

*Additional material examined*.—Peru: Huayabamba, 2; La Garita del Sol, Vitoc, 1.—Bolivia, Yungas of La Paz: San Antonio, 1; Songo, 3.

<sup>2</sup> *Spinus notatus* is clearly related to *S. magellanicus*, but has a slenderer, more acute bill, very little yellow on the wing coverts and tertials, and the sexes are nearly alike in coloration.

<sup>3</sup> As designated by Todd (Ann. Carnegie Mus., 17, p. 68, 1926).

Cat. Bds. Brit. Mus., 12, p. 221, 1888—Mexico (Orizaba) and Guatemala (Volcan de Fuego, Calderas, pine ridge of Dolores, Santa Barbara, and Vera Paz).

*Chrysomitris notatus* Sumichrast, Mem. Bost. Soc. N. H., 1, p. 550, 1869—temperate region of Vera Cruz.

*Spinus notatus* Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 149, 1886—Teziutlan, Puebla; Chapman, Bull. Amer. Mus. N. H., 10, p. 30, 1898—Jalapa, Vera Cruz.

*Spinus notatus notatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 102, 1901—part, Mexico and Guatemala; Todd, Ann. Carnegie Mus., 17, p. 66, 1926—part, Mexico and Guatemala (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 402, 1928—Chivelá, Oaxaca; Griscom, Bull. Amer. Mus. N. H., 64, p. 355, 1932—Guatemala (Finca Sepacuite, Secanquim, Nebaj, Chichicastenango, Momostenango, La Perla, Panajachel, San Lucas).

*Range*.—Pine and oak forests of the mountains of southeastern Mexico (in states of Vera Cruz, Puebla, Mexico, Oaxaca, and Chiapas) and Guatemala.<sup>1</sup>

2: Mexico (Jalapa, Vera Cruz, 2).

***Spinus notatus forreri* (Salvin and Godman). FORRER'S SISKIN.**

*Chrysomitris forreri* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 429, Nov., 1886—Ciudad Durango, Durango, Mexico (type in Salvin-Godman Collection, now in British Museum); Sharpe, Cat. Bds. Brit. Mus., 12, p. 222, 1888—Ciudad Durango.

*Spinus notatus forreri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 103, 1901—southwestern Mexico (monog.); Todd, Ann. Carnegie Mus., 17, p. 69, 1926 (monog.); Griscom, Bull. Mus. Comp. Zool., 75, p. 416, 1934—Chilpancingo, Guerrero (crit.); van Rossem, l.c., 77, p. 482, 1934—Sonora (Mina Abundancia) and Chihuahua (Bravo, Chihuahua, Carmen).

*Range*.—Mountains of western Mexico, from northeastern Sonora and Chihuahua south through Durango, Zacatecas, Jalisco, and Nayarit to Guerrero.<sup>2</sup>

**\**Spinus notatus oleaceus* Griscom.<sup>3</sup> HONDURAN SISKIN.**

*Spinus notatus oleaceus* Griscom, Proc. New Engl. Zool. Cl., 13, p. 61, Nov. 7, 1932—Cerro Cantoral, Distr. of Achaga, Honduras (type in Museum of Comparative Zoology, Cambridge, Mass.).

<sup>1</sup> Birds from Guatemala (Vera Paz) agree with a series from Jalapa, Vera Cruz.

<sup>2</sup> Van Rossem (Bull. Brit. Orn. Cl., 58, p. 135, July 13, 1938) has recently subdivided the above form, restricting *S. n. forreri* to Durango and northwards and separating the birds from Guerrero to Nayarit as *S. notatus griscomi* (type, from Volcan de Colima, Jalisco, in the British Museum).

<sup>3</sup> *Spinus notatus oleaceus* Griscom: Similar to *S. n. notatus*, but slightly smaller, with a slenderer bill; upper parts less yellowish, more olive-green; under parts dirty greenish yellow, without the rich gamboge shade of northern birds. Wing (males), 62–64. (Griscom, l.c.)

*Spinus notatus* (not *Carduelis notata* Du Bus) Ridgway, Proc. U. S. Nat. Mus., 14, p. 470, 1891—Santa Ana, Honduras.

*Spinus notatus notatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 102, 1901—part, Santa Ana, Honduras; Todd, Ann. Carnegie Mus., 17, p. 66, 1926—part, Honduras (Santa Ana) and Nicaragua (Matagalpa); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 340, 1932—Santa Ana, Honduras.

*Range*.—Pine and oak forests of Honduras and northern Nicaragua.

1: Nicaragua (Matagalpa, 1).

**\**Spinus xanthogaster xanthogaster* (Du Bus). YELLOW-BELLIED SISKIN.**

*Chrysomitris xanthogastra* Du Bus, Bull. Acad. Sci., Lettr. et Beaux-Arts Belg., 22, (1), p. 152, 1855—Ocaña, Colombia (type in Brussels Museum; descr. of male); Selater and Salvin, Proc. Zool. Soc. Lond., 1870, pp. 781, 785—part, Mérida (Venezuela), "Bogotá," and Costa Rica (crit.); Wyatt, Ibis, 1871, p. 328—Canuto and Cucuta Valley, Santander, Colombia; Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 508—Santa Elena, Colombia (eggs descr.).

*Chrysomitris bryantii* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 91—Dota, Costa Rica (type in U. S. National Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 104, 1868—Dota; Frantzius, Journ. Orn., 17, p. 302, 1869—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 56—Volcan de Irazú, Costa Rica.

*Chrysomitris xanthogaster* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 430, pl. 31, fig. 3, 1886—part, Costa Rica (Dota, Frailes, Irazú), Colombia, Venezuela, and (?) Ecuador; Sharpe, Cat. Bds. Brit. Mus., 12, p. 209, 1888—Costa Rica (Irazú, Frailes, Dota), Colombia (Bogotá, Canuto, Santa Elena), Venezuela, and (?) Ecuador.

*Spinus xanthogastra* Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 112, 1887—Cartago, Dota, and Sarchí, Costa Rica.

*Spinus xanthogaster* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 105, 1901—Costa Rica to Venezuela and (?) Ecuador (monog.); Pigeu, Mém. Soc. Neuchât. Sci. Nat., 5, p. 808, 1914—Angelopolis, near Medellín, Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 564, 1917—San Antonio, western Andes, and Santa Elena, central Andes, Colombia.

*Spinus xanthogaster bryanti* Bangs, Proc. New Engl. Zool. Cl., 4, p. 34, 1908—Costa Rica (crit.); Carriker, Ann. Carnegie Mus., 6, p. 914, 1910—Costa Rica (Volcan de Irazú, Azahár de Cartago, Carrillo, La Estrella de Cartago, Sarchí, Turrialba, Dota, Ujurrás de Térraba) (crit.).

*Spinus xanthogaster xanthogaster* Todd, Ann. Carnegie Mus., 17, p. 70, 1926 (monog.); (?) Chapman, Bull. Amer. Mus. N. H., 55, p. 621, 1926—La Chonta, Ecuador (one female).

*Range*.—Subtropical zone of Costa Rica and extreme western Panama (Boquete, Chiriquí), Colombia (except Santa Marta



region), and western Venezuela (Cordillera of Mérida east to the mountains around Caracas); (?)Ecuador.<sup>1</sup>

7: Costa Rica (Volcan de Irazú, 1; Juan Viñas, 1); Panama (Boquete, Chiriquí, 1); Colombia (Bogotá, 1); Venezuela (Mérida, 1; Teta de Niquitao, 2).

***Spinus xanthogaster stejnegeri* (Sharpe).<sup>2</sup> STEJNEGER'S SISKIN.**

*Chrysomitris stejnegeri* Sharpe, Cat. Bds. Brit. Mus., 12, p. 210, 1888—Sorata and Nairapi, Dept. La Paz, Bolivia (type in British Museum).

*Chrysomitris xanthogastra* (not of Du Bus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 785—part, Bolivia; idem, l.c., 1879, p. 607—Sorata and Nairapi.

*Chrysomitris xanthogaster* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 430, 1886—part, Bolivia.

*Spinus xanthogaster stejnegeri* Todd, Ann. Carnegie Mus., 17, p. 72, 1926—Bolivia (monog.).

**Range.**—Subtropical zone of northern Bolivia (Dept. La Paz to Santa Cruz).

**\**Spinus atratus* (Lafresnaye and d'Orbigny). BLACK SISKIN.**

*Carduelis stratus* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 83, 1837—La Paz, Bolivia (type in Paris Museum examined); d'Orbigny, Voyage Amér. Mérid., Ois., p. 364, pl. 48, fig. 2, 1844—La Paz; Philippi, Reise Wueste Atacama, p. 162, 1860—northern Chile; Hartert and Venturi, Nov. Zool., 16, p. 176, 1909—Tucumán (Lara, Cerro Muñoz) and Jujuy (Angosta Perchela).

<sup>1</sup> Birds from Mérida and the Venezuelan north coast mountains agree perfectly with a suite from the east Colombian Andes, both series varying to the same degree in the extent of the yellow wing-spot and the intensity of the under parts. Nine adult males from Costa Rica average slightly paler beneath and have generally less yellow at the base of the tail, but these trifling divergencies are so largely bridged by individual variation that I do not see any practical advantage in recognizing a northern race under the name of *S. x. bryantii*. The status of the inhabitants of Ecuador, whence only a single female is known, remains to be determined.

**Additional material examined.**—Costa Rica: Volcan de Irazú, 11.—Colombia: "Bogotá," 7; Santa Elena, 2; Antioquia, 1.—Venezuela: Mérida, 5; above Puerto Cabello, Carabobo, 3; Galipán, Cerro del Ávila, near Caracas, 14.

<sup>2</sup> *Spinus xanthogaster stejnegeri* (Sharpe): Similar to the nominate race, but slightly larger, with longer bill; tibial feathers in males extensively yellow instead of dusky tipped with yellowish or whitish; throat of females clouded with dusky. Wing, 66½–69, (female) 65; tail, 44–46½, (female) 41–44; bill, 10–11.

This form, which is found chiefly in the western Yungas (of La Paz)—although there is also one record from Santa Cruz (Cerro Hosane)—is but slightly different from typical *xanthogaster*, which is rather strange considering the absence of any representative in the intervening Peruvian republic.

**Material examined.**—Bolivia, Dept. La Paz: Chaco, 4; Iquico (Illimani), 6; Songo, 1.

*Chrysomitris atrata* Bonaparte, Consp. Gen. Av., 1, (2), p. 515, 1850 (diag.); Burmeister, Journ. Orn., 8, p. 257, 1860—Sierra de Mendoza;<sup>1</sup> idem, Reise La Plata St., 2, p. 490, 1861—Sierra de Uspallata, Mendoza;<sup>1</sup> Sclater, Cat. Coll. Amer. Bds., p. 125, 1862—Bolivia; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 91 (crit.); Pelzeln, Reise Novara, Zool., 1, Vogel, p. 92, 1865—Chile (spec. examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 152—Pitumarca, Cuzco, Peru; Taczanowski, l.c., 1874, p. 526—Junín, Peru (descr. of eggs); Allen, Bull. Mus. Comp. Zool., 3, p. 353, 1876—Moho, Lake Titicaca, Peru (habits); Landbeck, Zool. Garten, 18, p. 254, 1877—near Uspallata and Portillo Pass, Mendoza; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 607—La Paz, Bolivia; Sclater, l.c., 1886, p. 397—Huasco and Sacayá, Tarapacá, Chile; Taczanowski, Orn. Pér., 3, p. 53, 1886—Peru (Junín, Tarma, Huanta, Puno); Bartlett, Monog. Weaver-Birds and Finches, Part 1, pl. 1 and text, Feb., 1888—La Paz (Bolivia) and Mendoza (monog.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 212, 1888—Bolivia, Mendoza, and Peru (Pitumarca); Philippi, Ornith., 4, p. 159, 1888—"Colorados ii" [probably near Rio Loa, Antofagasta], Chile; Sclater and Hudson, Arg. Orn., 1, p. 65, 1888—Sierra de Uspallata, Mendoza; Sclater, Proc. Zool. Soc. Lond., 1891, p. 134—Sacayá and Lake Huasco, Tarapacá, Chile; Koslowsky, Rev. Mus. La Plata, 6, p. 290, 1895—Catamarca; Reed, Anal. Univ. Chile, 93, p. 200, 1896—Tarapacá, Chile; Albert, l.c., 108, p. 196, 1901—Chile (monog.); Lane, Ibis, 1897, p. 22—Huasco, and Sacayá, Tarapacá; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 178, 1902—Tucumán; Baer, Ornith., 12, p. 216, 1904—Lara, Tucumán; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 43, 1905—sierras of Tucumán.

*Chrysomitris anthracina* Philippi, Anal. Univ. Chile, 91, p. 675, 1895—Andes of San Fernando [Colchagua], Chile (type in National Museum, Santiago de Chile; cf. Gigoux and Looser, Bol. Mus. Nac. Chile, 13, p. 19, 1930); idem, Anal. Mus. Nac. Chile, 15, p. 56, pl. 17, fig. 1, 1902—San Fernando.

*Spinus atratus* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 353—Ingapirca, Maraynioc, Jauja, and Tarma, Dept. Junín, Peru; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 387, 1910 (range in Argentina); Chapman, Bull. U. S. Nat. Mus., 117, p. 110, 1921—Ollantaytambo and La Raya, Urubamba, Peru; Todd, Ann. Carnegie Mus., 17, p. 73, 1926 (monog.); Deautier, El Hornero, 4, pp. 186, 187, 1928—Argentina; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 467, 1930—La Quinua (Junín) and Huánuco Viejo (Huánuco), Peru (crit.); Hellmayr, l.c., 19, p. 84, 1932—Antofagasta (Ojo de San Pedro) and Tarapacá (Cueva Negra, Huasco, Sacayá), Chile (crit.).

*Spinus atratus fasciatus* Carriker, Proc. Acad. Nat. Sci. Phila., 82, p. 374, Dec. 15, 1930—Opamayo, Lake Junín, Peru (type in the Academy of Natural Sciences, Philadelphia).

**Range.**—Puna zone of southern Peru (north to Huánuco), Bolivia, northern Chile (south to Antofagasta), and western Argen-

<sup>1</sup> The alleged female described as "light gray with greenish edges to the feathers" does not fit that sex of the present species.

tina (from Jujuy to the Sierra de Uspallata, Mendoza); casual in central Chile (San Fernando, Colchagua; Cordillera of Santiago).<sup>1</sup>

7: Peru (La Quinua, Junín, 3; Huánuco Viejo, Huánuco, 1); Argentina (Angosta Perchela, Jujuy, 1); Chile (Ojo de San Pedro, Prov. Antofagasta, 2).

**\**Spinus uropygialis* (Sclater).<sup>2</sup> YELLOW-RUMPED SISKIN.**

*Chrysomitris uropygialis* Slater, Cat. Coll. Amer. Bds., p. 125, 1862—Chile (type in coll. of P. L. Slater, now in British Museum, examined); Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 91—Chile (crit.); Pelzeln, Reise Novara, Zool., 1, Vögel, p. 92, 1865—Chile (spec. examined); Slater, Proc. Zool. Soc. Lond., 1867, pp. 322, 338—Santiago, Chile; Philippi, Anal. Univ. Chile, 31, p. 263, 1868—Cordilleras of central Chile; Landbeck, Zool. Garten, 18, p. 254, 1877—high Cordillera [of Chile] at 5,000 to 10,000 ft. elev.; Reed, Anal. Univ. Chile, 49, p. 544, 1877—Valle de los Cipresos, Colchagua; Taczanowski, Orn. Pér., 3, p. 54, 1886—"San Mateo, Lima, Peru" (errore); Bartlett, Monog. Weaver-Birds & Finches,

<sup>1</sup> Doering's record of *Chrysomitris atrata* from the Rio Guayquiraro, southern Corrientes (cf. Period. Zool. Arg., 1, p. 254, 1874), must be due to misidentification of some other species.

Subdivision of the Black Siskin is impracticable. On comparing good series from various parts of the range, I notice some variation in the extent and tone of the yellow abdominal zone in the male sex, which seems to be purely individual. In certain individuals the yellow runs up towards the breast, while in others this color is restricted to the anal region and lower tail coverts, but these divergencies are connected by every possible gradation, and are by no means peculiar to any geographic area. A specimen with only the under tail coverts yellow was described by Philippi as *C. anthracina*. Since discussing this alleged species in "The Birds of Chile," I have examined in the Vienna Museum an example corresponding to Philippi's description, which was obtained, in company of a full-grown young bird, by Dr. Segeth in the Cordillera of Santiago. While I cannot see in it anything but an extreme variation of the Black Siskin, its casual occurrence in central Chile seems now established beyond doubt. Adult females from Junín, Peru, differ nowise from Bolivian examples, having the median wing coverts apically edged with greenish or yellowish and the dorsal feathers margined with olivaceous. Carriker, when describing *S. a. fasciatus*, evidently used immature individuals having retained the wings of the juvenile plumage characterized by broad ochraceous-buffy tips to the median upper wing coverts.

*Additional material examined.*—Peru: Tarma, 1; Maraynioc, 2; Jauja, 1; Ingapirca, 1; Anta, Cuzco, 3.—Bolivia: La Paz, 12; Esperanza, 1.—Chile: Tarapacá, 1; Sacayá, 1; Cueva Negra, Tarapacá, 1; Huasco, Tarapacá, 1; Cordillera of Santiago, 2.—Argentina: Lara, Tucumán, 3; Cerro Muñoz, Tucumán, 3; Angosta Perchela, Jujuy, 2; Sierra de Uspallata, Mendoza, 1; Mendoza, 1.

<sup>2</sup> In "The Birds of Chile" (pp. 86-87), I have stated my reasons for provisionally according specific rank to the Yellow-rumped Siskin. Birds from the Aconcagua Valley, Mendoza, agree perfectly with a Chilean series. Taczanowski's locality, "San Mateo, Lima," is likely to be erroneous.

[*Chrysomitris icteroides* (Schimper MS.) Bonaparte (Compt. Rend. Acad. Sci. Paris, 37, p. 915, 1853; Not. Orn. Coll. Delattre, p. 15, 1854—Chile), of which the type is obviously lost, cannot be identified from the phrase "une espèce à petit bec aiguisé."

*Additional material examined.*—Chile: Huasco Alto, Atacama, 1; Santiago, 1; unspecified, 6.—Argentina, Mendoza: Aconcagua Valley (Puente del Inca, Puente de Vacas), 6.

Part 2, pl. 2, and text, April, 1888—Chile and "Peruvian Andes," *errore* (monog.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 211, 1888—Chile; Reed, Ibis, 1893, p. 596—Chile (seasonal occurrence); idem, Anal. Univ. Chile, 93, p. 200, 1896—Chile; Albert, l.c., 108, p. 194, 1901—Chile (monog.); Lönnberg, Ibis, 1903, p. 451—Moreno, Jujuy; Barros, Rev. Chil. Hist. Nat., 25, p. 188, 1921—Cordillera of Aconcagua; Gigoux, l.c., 28, p. 84, 1924—Caldera, Atacama; Housse, l.c., 29, p. 147, 1925—San Bernardo, Santiago.

*Chrysomitris magellanicus* (not *Fringilla magellanica* Vieillot) Fraser, Proc. Zool. Soc. Lond., 11, p. 113, 1843—valleys of the Andes on the eastern and western sides.

*Chrysomitris xanthomelaena* (Reichenbach MS.) Bibra, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 5, p. 130, 1853—Cordillera [of Santiago], Chile (nomen nudum).

*Chrysomitris atrata* (not *Carduelis atrata* Lafresnaye and d'Orbigny) Cassin, in Gilliss, U. S. Astr. Exp., 2, p. 181, 1855—interior of Chile.

*Chrysomitris atrata* Jaffuel and Pirion, Rev. Chil. Hist. Nat., 31, p. 109, 1927—cerros of the Marga-Marga Valley, Valparaíso.

*Melanomitris uropygialis* Gosse, in Fitzgerald, The Highest Andes, p. 347, 1899—Aconcagua Valleys, Vacas, Mendoza (spec. examined).

*Spinus uropygialis* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 387, 1910—Moreno, Jujuy, and Cordillera de Mendoza; idem, Bol. Soc. Physis, 1, p. 356, 1914—Jujuy and Mendoza; Todd, Ann. Carnegie Mus., 17, p. 76, 1926 (monog.); Deautier, El Hornero, 4, p. 187, 1928—Argentina and Chile; Barros, Rev. Chil. Hist. Nat., 34, p. 315, 1930—Juncal to Portillo, Santiago; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 86, 1932—central Chile (crit.); Barros, Rev. Chil. Hist. Nat., 38, p. 136, 1934—Corral de las Ovejas, O'Higgins, Chile.

*Range*.—Andes of central Chile, from Atacama to Colchagua, and of the adjoining parts of Argentina (Moreno, Jujuy; Aconcagua Valleys, Mendoza).

2: Chile (Caldera, Atacama, 1; San José de Maipo, Santiago, 1).

**\**Spinus barbatus* (Molina). BLACK-CHINNED SISKIN.**

*Fringilla barbata* Molina,<sup>1</sup> Saggio Stor. Nat. Chile, pp. 247, 345, 1782—Chile = Valparaíso (as designated by Todd, Ann. Carnegie Mus., 17, p. 81, 1926); Philippi, Arch. Naturg., 26, (1), p. 27, 1860—Chile (synon.).

*Carduelis stanleyi* Audubon, Syn. Bds. N. Amer., p. 118, 1839—"Upper California," *errore* = Valparaíso, Chile (type in U. S. National Museum; cf. Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 90); idem, Bds. Amer., 8vo ed., 3, p. 137, pl. 185, 1841—"California."

*Chrysomitris campestris* (not *Fringilla campestris* Spix) Darwin, Zool. Voy. Beagle, 3, Birds, p. 89, 1839—Tierra del Fuego and Valparaíso, Chile; Fraser, Proc. Zool. Soc. Lond., 11, p. 112, 1843—Valparaíso, Chile; Des Murs, in Gay, Hist. Ffs. Pol. Chile, Zool., 1, p. 352, 1847—Chile; Boeck,

<sup>1</sup> Molina's description is very poor and must have been drawn up from memory.

- Naumannia, 1855, p. 504—Valdivia, Chile; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 92, 1865—Chile; Philippi, Anal. Univ. Chile, 31, p. 263, 1868—Chile; Landbeck, Zool. Garten, 18, p. 253, 1877—foothills of the Chilean Andes, also at Valdivia; Lataste, Act. Soc. Scient. Chili, 3, p. cxv, 1893—Ninhue, Maule, Chile; Waugh and Lataste, l.c., 4, pp. lxxxvii, clxxii, 1894—Peñaflor, Santiago, and San Alfonso, Quillota, Chile; Lataste, Extr. Procès-Verb. Séanc. Soc. Linn. Bord., 1923, p. 170—Santa Tereza, Chile; Gigoux, Rev. Chil. Hist. Nat., 28, p. 84, 1924—Caldera, Atacama.
- Chrysomitris marginalis* Bonaparte, Consp. Gen. Av., 1, (2), p. 517, 1850—Chile (cotypes in Berlin and Paris Museums); Cabanis, Mus. Hein., 1, p. 160, 1851—Chile; Cassin, in Gilliss, U. S. Astr. Exp., 2, p. 181, pl. 17, 1855—Chile; Burmeister, Reise La Plata St., 2, p. 490, 1861—"near Mendoza," Argentina.
- Criithagra flavospecularis* Hartlaub, Naumannia, 3, p. 213, 1853—Valdivia, Chile (location of type unknown).
- Chrysomitris barbata* Philippi, Arch. Naturg., 26, (1), p. 27, 1860—Chile (crit., syn.); Sclater, Cat. Coll. Amer., Bds. p. 125, 1862—part, spec. b, Falkland Islands; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 90—Chile (crit.); Sclater, Proc. Zool. Soc. Lond., 1867, pp. 322, 338—Chile; Sclater and Salvin, Ibis, 1868, p. 186—Gregory Bay, Straits of Magellan; idem, Ibis, 1870, p. 499—Ancud, Chiloé, and Sandy Point, Straits of Magellan; Reed, Anal. Univ. Chile, 49, p. 544, 1877—Cauquenes, Colchagua; Sharpe, Cat. Bds. Brit. Mus., 12, p. 216, 1888—Falkland Islands, Straits of Magellan, Tierra del Fuego, and Maldonado (Uruguay); Oustalet, Miss. Sci. Cap Horn, 6, p. B99, 1891—Punta Arenas, Orange Bay, and Picton Island, Straits of Magellan; Reed, Anal. Univ. Chile, 93, p. 200, 1896—Chile; Lane, Ibis, 1897, p. 21—Corral, Coronel, Calle-Calle, and Maquegua, Chile; Schalow, Zool. Jahrb., Suppl., 4, p. 722, 1898—Tumbes, Chile; Salvadori, Ann. Mus. Civ. Stor. Nat. Genova, (2), 20, p. 622, 1900—Punta Arenas and Penguin Rookery, Staten Island; Albert, Anal. Univ. Chile, 108, p. 198, 1901—Chile (monog.); Dabbene, Anal. Mus. Nac. Buenos Aires, 8, p. 361, 1902—Ushuaia, Tierra del Fuego; Crawshaw, Bds. Tierra del Fuego, p. 49, col. pl., 1907—Rio McClelland Settlement; Housse, Rev. Chil. Hist. Nat., 28, p. 49, 1924—Isla La Mocha, Chile; Jaffuel and Pirion, l.c., 31, p. 109, 1927—Marga-Marga Valley, Valparaíso; Bullock, l.c., 33, pp. 125, 189, 1929—Cerro de Nahuelbuta and Angol, Malleco, Chile.
- Chrysomitris magellanicus* (not *Fringilla magellanica* Vieillot) Abbott, Ibis, 1861, p. 154—Stanley, East Falkland Island.
- Chrysomitris magellanica* Sclater, Proc. Zool. Soc. Lond., 1861, p. 46—Falkland Islands; Arribáizaga, Anal. Mus. Nac. Buenos Aires, 8, p. 166, 1902—Lago General Paz, Chubut.
- Spinus barbata* Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—Valparaíso, Chile.
- Spinus barbatus* Ridgway, Proc. U. S. Nat. Mus., 12, p. 131, 1889—Sandy Point and Laredo Bay, Straits of Magellan; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 387, 1910 (range in Argentina); Barros, Rev. Chil. Hist. Nat., 24, p. 148, 1920—Ñilahué, Curicó, Chile; idem, l.c., 25, p.

188, 1921—Los Andes and Rio Blanco, Aconcagua, Chile; Paessler, Journ. Orn., **70**, p. 475, 1922—Coronel, Chile (habits); Peters, Bull. Mus. Comp. Zool., **65**, p. 330, 1923—Bariloche, Rio Negro; Housse, Rev. Chil. Hist. Nat., **29**, p. 147, 1925—San Bernardo, Chile; Todd, Ann. Carnegie Mus., **17**, p. 78, 1926 (monog.); Wetmore, Bull. U. S. Nat. Mus., **133**, p. 434, 1926—Concon (Valparaiso), Chile and General Roca, Rio Negro; idem, Univ. Calif. Pub. Zool., **24**, p. 464, 1926—Bariloche, Rio Negro; Stone, Rep. Princet. Univ. Exp. Patagonia, **2**, (1), p. 830, 1928—Punta Arenas, Patagonia; Deautier, El Hornero, **4**, pp. 184, 187, 1928 (range); Barros, Rev. Chil. Hist. Nat., **33**, p. 362, 1929—Rio Blanco, Aconcagua, Chile; Bennett, Ibis, 1931, p. 13—Falkland Islands; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., **19**, p. 83, 1932—Atacama to Straits of Magellan, Chile; Reynolds, El Hornero, **5**, p. 343, 1934—Tierra del Fuego; idem, Ibis, 1935, p. 70—Deceit Island, Cape Horn.

*Spinus ictericus ictericus* (not *Fringilla icterica* Lichtenstein) Peters, Bull. Mus. Comp. Zool., **65**, p. 331, 1923—Rio Colorado, Rio Negro (one female; fide W. E. C. Todd).

*Range*.—Chile, from southern Atacama (Copiapó Valley) to the Straits of Magellan, and the adjoining portion of Argentina along the eastern base of the Andes from the vicinity of Lake Nahuel Huapi<sup>1</sup> southwards to Tierra del Fuego; accidental on the Falkland Islands.<sup>2</sup>

20: Chile (Ramadilla, Copiapó Valley, Atacama, 3; Romero, Coquimbo, 2; San José de Maipo, Santiago, 1; Las Condes, Santiago, 1; Talcahuano, Concepción, 1; Curacautín, Malleco, 1; Rio Colorado, Malleco, 1; Quellon, Chiloé Island, 5; Melinka, Ascension Island, Guaitecas Islands, 4); Argentina (Valle del Lago Blanco, Chubut, 1).

**\*Spinus tristis tristis** (Linnaeus). EASTERN GOLDFINCH.

*Fringilla tristis* Linnaeus, Syst. Nat., 10th ed., **1**, p. 181, 1758—based on "The American Goldfinch" Catesby, Nat. Hist. Carolina, **1**, p. 43, pl. 43; Carolina; Virginia, and New York (South Carolina accepted as type locality).

*Fringilla taria* P. L. S. Müller, Natursyst., Suppl., p. 163, 1776—based on "Tarin, de la nouvelle York" Daubenton, Pl. Enl., pl. 292, fig. 1; New York.

*Carduelis americana* Swainson, in Swainson and Richardson, Faun. Bor.-Amer., **2**, "1831," p. 268, Feb., 1832—new name for *Fringilla tristis* Linnaeus.

*Chrysomitris pistacina* (Eversmann MS.) Bonaparte, Conspectus Gen. Av., **1**, (2), p. 515, end of 1850—"Sibiria," errore= eastern North America (type in Berlin Museum; = adult female, cf. Stresemann, Ornith. Monatsber., **30**, p. 41, 1922).

<sup>1</sup> Burmeister's record from Mendoza is open to doubt.

<sup>2</sup> Birds from western Argentina agree perfectly with Chilean ones.

*Additional material examined*.—Chile: Santiago, 5; Valdivia, 7; Desagües, near Puerto Montt, 2.—Argentina, Neuquen: Lake Nahuel Huapi, 4; Arroyitos, 2.

*Chrysomitris tristis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 195, 1888 (in part).

*Astragalinus tristis tristis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 109, 1901 (monog., full bibliog.).

*Astragalinus tristis* Dwight, Auk, 19, pp. 149–164, 1902 (variation, plumages, measurements).

*Range*.—Eastern North America, from southern Manitoba, southern Quebec, and Newfoundland south to eastern Colorado, southern Oklahoma, central Arkansas, northern Alabama, and northern Georgia; winters south to the Gulf coast.

119: Maine (Upton, 4; New Vineyard, 1); New York (Cayuga County, 1; Suffolk County, 1; Shelter Island, 9; Peterboro, 1); Connecticut (East Hartford, 21); New Jersey (Englewood, 1); Ohio (Columbus, 1); Wisconsin (Beaver Dam, 17; Delton, 1; Neenah, 1); Michigan (St. Joseph, 1; Kalamazoo, 1); Illinois (Beach, Lake County, 2; Fox Lake, 1; Deerfield, 3; Fort Sheridan, 1; Lake Forest, 1; Auburn Park, 1; Addison, 3; Chicago, 9; Joliet, 3; Glen Ellyn, 1; Grand Chain, 6; Henry, 1; Hegewisch, 2; Nugard, 1); Indiana (Liverpool, 1; Dune Park, Lake County, 1; Bluffton, 3); Iowa (Knoxville, 1); District of Columbia (Washington, 1); Arkansas (Cleburne County, 1; Winslow, 1); Colorado (Fort Lyon, 4); Texas (Harlingen, 1); Mississippi (Holly Springs, 1; Vicksburg, 1); Louisiana (Chef Menteur, 3; Buras, 1; New Orleans, 1); Florida (Gainesville, 2).

**\**Spinus tristis pallidus* Mearns. PALE GOLDFINCH.**

*Spinus tristis pallidus* Mearns, Auk, 7, p. 244, July, 1890—Forte Verde, Yavapai County, central Arizona (type in coll. of E. A. Mearns).

*Astragalinus tristis pallidus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 111, 1901 (monog., full bibliog.); Phillips, Auk, 28, p. 87, 1911—Santa Leonor, Tamaulipas.

*Chrysomitris tristis* (not *Fringilla tristis* Linnaeus) Sharpe, Cat. Bds. Brit. Mus., 12, p. 195, 1888—part, spec. v–x, Jalapa, Mexico.

*Range*.—Rocky Mountains of North America from southeastern British Columbia and southwestern Manitoba south to central Nevada and southern Colorado; in winter south through eastern Mexico (Monterrey, Nuevo León; Sabinas, Coahuila; Santa Leonor, Tamaulipas; Texolo and Jalapa, Vera Cruz).

4: Colorado (unspecified, 3); Mexico (Sabinas, Coahuila, 1).

**\**Spinus tristis salicamans* Grinnell. WILLOW GOLDFINCH.**

*Spinus tristis salicamans* Grinnell, Auk, 14, p. 397, Oct., 1897—Pasadena, California (type in coll. of J. Grinnell, now in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 304, 1932); Brooks, Auk, 17, p.

106, 1900—Okanagan, British Columbia; Grinnell, Univ. Calif. Pub. Zool., 32, p. 158, 1928—northwestern Lower California.

*Astragalinus tristis salicamans* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 112, 1901 (monog., full bibliog.); Huey, Auk, 43, p. 356, 1926—San Quintin plain and south of Ensenada, Lower California.

*Chrysomitris tristis* (not *Fringilla tristis* Linnaeus) Sharpe, Cat. Bds. Brit. Mus., 12, p. 195, 1888—part, spec. r-u, California.

*Range*.—Pacific coast of North America from extreme southwestern British Columbia south to northwestern Lower California, chiefly west of the Cascades and the Sierra Nevada.<sup>1</sup>

23: British Columbia (Okanagan, 3); Oregon (Tillamook, 1); California (Claremont, 1; Menlo Park, 1; Hayward, 3; San José 1; Los Gatos, 1; Los Baños, 3; Monterey, 1; Monterey County, 3; Los Angeles County, 1; Pomona, 1; Riverside, 2; Stockton, 1; Point Reyes, 1; Corona, 2; San Diego County, 1).

**\**Spinus psaltria hesperophilus* (Oberholser).<sup>2</sup> GREEN-BACKED GOLDFINCH.**

*Astragalinus psaltria hesperophilus* Oberholser, Proc. Biol. Soc. Wash., 16, p. 116, Sept. 30, 1903—San Bernardino, California (type in U. S. National Museum); Miller, Bull. Amer. Mus. N. H., 22, p. 175, 1906—Guanacevi, Durango; Grinnell, Univ. Calif. Pub. Zool., 5, p. 92, 1908—San Bernardino Mts., California; Taylor, l.c., 7, p. 389, 1912—northern Nevada; Grinnell, l.c., 12, p. 165, 1914—lower Colorado Valley; Kellogg, l.c., p. 383, 1916—Scott River, northern California; Grinnell, Proc. Calif. Acad. Sci., (4), 13, p. 83, 1923—Death Valley; Swarth, l.c., (4), 18, p. 323, 1929—southern Arizona.

*Spinus psaltria hesperophilus* Grinnell, Univ. Calif. Pub. Zool., 32, p. 158, 1928—Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 296, 1931—Sonora (El Doctor, Pesqueira, San Javier, Sáric, southwest of Nogales, (?)Chinobampo, (?)Guiracoba); idem, Bull. Mus. Comp. Zool., 77, p. 482, 1934—Sonora (Hacienda de San Rafael, Nacoziari, Oposura).

*Chrysomitris psaltria* (not *Fringilla psaltria* Say) Sharpe, Cat. Bds. Brit. Mus., 12, p. 204, 1888—California (Red Bluff, Coahuila Valley, Hayward, Pueblo, Fort Tejon).

<sup>1</sup> An undetermined race of *S. tristis* has been taken at Panajachel, in the Pacific Cordillera of Guatemala (cf. Griscom, Bull. Amer. Mus. N. H., 64, p. 356, 1932). It is known from a single unsexed immature specimen which is very small (wing, 63½ mm.) and in coloration even darker than *salicamans*.

<sup>2</sup> *Spinus psaltria hesperophilus* (Oberholser): Similar to *S. p. psaltria*, but auriculars, sides of neck, with back, nape, and rump, in fully adult plumage olive green instead of black.

As has been shown by Oberholser, Say's description of *Fringilla psaltria* was clearly based upon an immature green-backed specimen of the (eastern) Arkansas Goldfinch, leaving the western race unnamed, for which the subspecific term *hesperophilus* was accordingly proposed.



*Astragalinus psaltria psaltria* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 114, 1901 (monog., full bibliog.).

*Astragalinus psaltria* Brewster, Bull. Mus. Comp. Zool., 41, p. 135, 1902—Lower California (Sierra de la Laguna and Cape region).

*Astragalinus psaltria arizonae* (not of Coues) Brewster, Bull. Mus. Comp. Zool., 41, p. 136, 1902—San José del Cabo, Lower California (crit.).

*Range*.—Western North America from southern Oregon and Utah to southern Lower California, northern Sonora, and extreme southwestern New Mexico; winters from California to Cape San Lucas, Lower California.

49: Utah (unspecified, 1); California (Placer County, 3; Berkeley, 2; Nicasio, 6; Pasadena, 1; Pomona, 2; Hayward, 4; Los Gatos, 2; Palo Alto, 2; San Diego, 6); Arizona (Phoenix, 1; Fort Verde, 1; Fort Thomas, 1; Tucson, 3; Huachuca Mountains, 13; Calabasas, 1).

**\**Spinus psaltria psaltria* (Say).<sup>1</sup> ARKANSAS GOLDFINCH.**

*Fringilla psaltria* Say, in Long, Exped. Rocky Mts., 2, p. 40 (note), 1823—Arkansas River near the mountains=near Pueblo, Colorado (type lost); Bonaparte, Amer. Orn., 1, p. 54, pl. 6, fig. 3, 1825 (fig. of type, then in Peale's Museum, No. 6278).

*Carduelis mexicanus* Swainson, Phil. Mag., (n.s.), 1, No. 6, p. 435, June, 1827—Temescaltepec and Real del Monte, Hidalgo, Mexico (type in coll. of W. Bullock, now probably in the Swainson Collection in the University Museum, Cambridge, Eng.).

*Fringilla melanozantha* Lichtenstein, Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, 1830—Mexico (type in Berlin Museum); Cabanis, Journ. Orn., 11, p. 56, 1863 (reprint).

*Fringilla texensis* Giraud, Sixteen Spec. N. Amer. Bds., pl. 5, fig. 1, 1841—Texas (type in U. S. National Museum).

[*Chrysomitris* (*Pseudomitris*) *mexicanus*] var. *arizonae* Coues, Proc. Acad. Nat. Sci. Phila., 1866, pp. 82, 83—near Fort Wingate, New Mexico, and on the Gila River, Arizona (type, from near Fort Wingate, in U. S. National Museum; cf. Oberholser, Proc. Biol. Soc. Wash., 16, p. 115, 1903).

*Chrysomitris mexicana* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 431, 1886—part, Mexico (excl. of Yucatan) and Guatemala (San Gerónimo, Coban); Sharpe, Cat. Bds. Brit. Mus., 12, p. 206, 1888—part, spec. a-h, p-r, Mexico (Jalapa; Tres Marias Islands) and Guatemala (Coban).

*Astragalinus psaltria arizonae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 115, 1901 (monog., full bibliog.); Oberholser, Proc. Biol. Soc. Wash., 16, p. 115, 1903 (crit.).

*Astragalinus psaltria mexicanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 117, 1901—Mexico and southern Texas (monog., full bibliog.).

<sup>1</sup>*Fringilla catototol* Gmelin (Syst. Nat., 1, [2], p. 914, 1789) is based on "Caca-tototl" Fernandez (Hist. Nov. Hisp., p. 52), which appears to me unidentifiable.

*Astragalinus psaltria psaltria* Oberholser, Proc. Biol. Soc. Wash., **16**, p. 115, 1903 (crit., char., range); Phillips, Auk, **28**, p. 87, 1911—Galindo, Rampa-huila, Yerba Buena, Guiaves, Montelunga, and Rio Martinez, Tamaulipas; McLellan, Proc. Calif. Acad. Sci., (4), **16**, p. 307, 1926—Maria Madre and Maria Magdalena, Tres Marias Islands.

*Spinus psaltria mexicanus* Jouy, Proc. U. S. Nat. Mus., **16**, p. 780, 1894—Soledad, San Luis Potosí, and El Molino, Jalisco (crit.).

*Spinus (Astragalinus) psaltria mexicanus* Griscom, Bull. Amer. Mus. N. H., **64**, p. 356, 1932—Sacapulas and La Primavera, northern Guatemala.

*Spinus psaltria mexicana* Griscom, Bull. Mus. Comp. Zool., **75**, p. 416, 1934—Chilpancingo, Guerrero.

*Spinus psaltria psaltria* van Rossem, Bull. Mus. Comp. Zool., **77**, p. 482, 1934—Chihuahua and Carmen, Chihuahua (winter).

*Range*.—Southwestern United States, from northern Colorado to northern Texas and south throughout Mexico, except the extreme northwestern and southeastern portions; casual in Wyoming.<sup>1</sup>

19: Texas (Ingram, 3; El Paso, 1); New Mexico (Santa Fé, 1); Mexico (San Luis Potosí, 2; Tuxpan, Jalisco, 7; Iguala, Guerrero, 5).

**\*Spinus psaltria jouyi (Ridgway). YUCATAN GOLDFINCH.**

*Astragalinus mexicanus jouyi* Ridgway, Auk, **15**, p. 320, Oct., 1898—Temax, Yucatan (type in U. S. National Museum).

*Chrysomitris mexicana* (not *Carduelis mexicana* Swainson) Boucard, Proc. Zool. Soc. Lond., 1883, p. 445—Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 431, 1886—part, Yucatan; Salvin, Ibis, 1888, p. 263—Mujeres Island, Yucatan; Sharpe, Cat. Bds. Brit. Mus., **12**, p. 206, 1888—part, spec. i, k, Yucatan and Mujeres Island.

*Spinus* sp. Jouy, Proc. U. S. Nat. Mus., **16**, p. 781, 1894—Yucatan (crit.).

*Astragalinus psaltria jouyi* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 120, 1901—Yucatan (monog.).

*Range*.—Yucatan (including Mujeres Island).

1: Yucatan (unspecified, 1).

**\*Spinus psaltria colombianus (Lafresnaye). COLOMBIAN GOLDFINCH.**

*Carduelis colombianus* Lafresnaye, Rev. Zool., **6**, p. 292, 1843—"Colombie" = Bogotá (descr. of adult male; type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 378, 1930).

(?) *Chrysomitris nana* Bonaparte, Consp. Gen. Av., **1**, (2), p. 516, 1850—"Columbia" (descr. of female or young; type lost, formerly in Paris Museum; fide J. Berlioz [in litt.]).

*Astragalinus columbianus* Cabanis, Mus. Hein., **1**, p. 159, Oct., 1851—Colombia (descr. of adult male; type in Heine Collection, now in Municipal

<sup>1</sup> Like Mr. H. C. Oberholser, I am unable to separate Mexican specimens (*mexicanus*) from those of the United States.

Museum, Halberstadt); idem, Journ. Orn., 9, p. 94, 1861—Costa Rica (crit.); Carriker, Ann. Carnegie Mus., 6, p. 913, 1910—Juan Viñas and La Estrella de Cartago, Costa Rica.

*Chrysomitris columbiana(us)* Sclater, Proc. Zool. Soc. Lond., 23, p. 159, 1855—Bogotá; idem, Cat. Coll. Amer. Bds., p. 124, 1862—Bogotá; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 93—Bogotá (crit.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—San José, Costa Rica; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caracas, Venezuela; Wyatt, Ibis, 1871, p. 328—Ocaña, Colombia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 234—Mérida, Venezuela; Taczanowski, l.c., 1879, p. 230—Tambillo, Peru; Sclater and Salvin, l.c., 1879, p. 508—Concordia, Retiro, Santa Elena, and Medellín, Colombia (eggs descr.); Taczanowski, l.c., 1880, p. 199—Callacate, Peru; idem, Orn. Pér., 3, p. 51, 1886—Peru (Tambillo, Callacate, Chota, Bambamarca, Cutervo); Salvin, Nov. Zool., 2, p. 7, 1895—Viña, Huamachuco, Peru; Bangs, Proc. Biol. Soc. Wash., 12, p. 139, 1898—"Santa Marta"; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 27, 1899—Niebli, Ecuador.

*Chrysomitris colombiana* Sharpe, Cat. Bds. Brit. Mus., 12, p. 208, 1888—Colombia (Bogotá, "Sierra Nevada de Santa Marta," Medellín, Retiro, Concordia), Venezuela (Mérida, Caracas), Ecuador, and Peru (Tambillo).

*Chrysomitris mexicana* (not *Carduelis mexicana* Swainson) Sclater and Salvin, Ibis, 1860, p. 34—Dueñas, Guatemala; idem, Proc. Zool. Soc. Lond., 1864, p. 353—Lion Hill, Panama; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—Costa Rica (Barránca, San José); Salvin, Ibis, 1869, p. 314—Costa Rica (crit.); idem, Proc. Zool. Soc. Lond., 1870, p. 190—[Calobre], Veraguas; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 431, 1886—part, Guatemala (Dueñas), Costa Rica, and Panama; Sharpe, Cat. Bds. Brit. Mus., 12, p. 206, 1888—part, spec. m-o, s-f, Guatemala (Dueñas, Quezaltenango), Costa Rica (Volcan de Cartago, Irazú, San José), and Panama (Paraiso Station, Calobre, Lion Hill); Bangs, Proc. Biol. Soc. Wash., 12, p. 139, 1898—"Santa Marta"; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 356, p. 27, 1899—La Concepción, Mira Valley, Ecuador.

*Chrysomitris mexicanus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 332, 1862—Panama Railroad.

*Chrysomitris mexicana columbiana* Berlepsch, Journ. Orn., 32, p. 296, 1884—Bucaramanga, Colombia (crit.).

*Spinus mexicanus* Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 112, 1887—Costa Rica (San José, Cartago, Volcan de Irazú); Cherrie, Auk, 9, p. 249, 1892—San José, Costa Rica.

*Astragalinus mexicanus* Pigué, Mém. Soc. Neuchât. Sci. Nat., 5, p. 808, 1914—La Camelia, near Angelópolis (Medellín), Colombia.

*Spinus psaltria columbianus* Phelps, Auk, 14, p. 364, 1897—San Antonio, Bermúdez, Venezuela; Chapman, Bull. Amer. Mus. N. H., 55, p. 623, 1926—"Gualea," Ecuador.

*Spinus psaltria croceus* Jouy, Proc. U. S. Nat. Mus., 16, "1893," p. 780, pub. April 18, 1894—Panama (type in U. S. National Museum); Griscom, Bull. Amer. Mus. N. H., 64, p. 356, 1932—San Lucas, Panajachel, Lake

Amatitlan, and Pantaleon, Guatemala (crit.); idem, Bull. Mus. Comp. Zool., 78, p. 380, 1935—Pacific slope of western Panama.

*Astragalinus psaltria croceus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 118, 1901—Chiapas to western Ecuador (monog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 115, 1907—Mazatenango, Guatemala; Carriker, Ann. Carnegie Mus., 6, p. 913, 1910—Costa Rica (Escazú, Azahár de Cartago, El Salitral, Volcan de Irazú, San José, Cartago); Bangs and Noble, Auk, 35, p. 462, 1918—Bellavista, Peru; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 340, 1932—Cantarranas, Honduras.

*Astragalinus psaltria columbianus* Allen, Bull. Amer. Mus. N. H., 13, p. 165, 1900—Bonda, Onaca, and Minca, Colombia; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 120, 1901—Costa Rica to Venezuela and Peru (monog.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 191, 1916—Altagracia and Caicara, Orinoco, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 564, 1917—Colombia (Caldas, Miraflores, San Antonio, Cerro Munchique, El Eden, Rio Toché, Chicoral, near San Agustín, La Palma, La Candela, below Andalucia, El Consuelo above Honda, Fusugasugá, Bogotá, Quetame, Buena Vista, La Holanda, La Herrera, El Carmen, Pacho, Subia, Tenasuca, Puente Andalucia; crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 533, 1922—Cincinnati and Minca, Colombia (crit., habits).

*Spinus mexicanus columbianus* Berlepsch and Hartert, Nov. Zool., 9, p. 27, 1902—Altagracia and Caicara, Orinoco, Venezuela.

*Range.*—Central America, from southwestern Chiapas, Mexico, and the Pacific Cordillera of Guatemala south to Colombia, western Ecuador, and northern Peru, and east through northern Venezuela to Sucre and Monagas, south to the Orinoco Valley.<sup>1</sup>

30: Guatemala (Lake Amatitlan, 2; Mazatenango, 1); Costa Rica (San José, 1); Colombia (Cachiri, Santander, 1; La Holanda, north-east of Bogotá, 1; Bogotá, 5); Venezuela (Mérida, 2; Colón, Tachira, 3; Caracas, 7; Maracay, Aragua, 2; Cocollar, Sucre, 4); Peru (Menocucho, 1).

### \**Spinus lawrencei* (Cassin). LAWRENCE'S GOLDFINCH.

*Carduelis lawrencei* Cassin, Proc. Acad. Nat. Sci. Phila., 5, No. 5, Sept.-Oct., p. 105, pl. 5, pub. Dec. 7, 1850—Sonoma and San Diego, California (type,

<sup>1</sup> As has already been intimated by both Chapman and Todd, *S. p. croceus*, of Panama and farther north, appears to be inseparable. Individual variation in the presence and extent of the white markings on the lateral rectrices is considerable among specimens from the same locality, and while it cannot be denied that birds with wholly or nearly uniform black tail predominate in the eastern Andes of Colombia and in Venezuela, and those with extensive white tail spots in Central America, exceptions to this rule are so frequent that further subdivision of the form would serve no practical purpose.

*Additional material examined.*—Guatemala: Dueñas, 2.—Costa Rica: Irazú, 12.—Panama: Lion Hill, 2.—Colombia: Santa Marta, 2; "Bogotá," 34; Cundinamarca, 5; Bucaramanga, 4.—Venezuela: Mérida, 7; Galipán, Cerro del Avila, Caracas, 12; San Antonio, Sucre, 4.—Ecuador: Paramba, Prov. Imbabura, 5.

from Sonoma, in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., **51**, p. 30, 1899, and Grinnell, Univ. Calif. Pub. Zool., **38**, p. 304, 1932).

*Chrysomitris lawrencii* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 223, 1888—California and Arizona.

*Astragalinus lawrencii* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 121, 1901 (monog., full bibliog.).

*Astragalinus lawrencei* Grinnell, Univ. Calif. Pub. Zool., **5**, p. 92, 1908—San Bernardino Mountains; idem, l.c., **12**, p. 166, 1914—Riverside Mountain, lower Colorado Valley, California.

*Spinus lawrencei* Grinnell, Univ. Calif. Pub. Zool., **32**, p. 158, 1928—northern Lower California; van Rossem, Trans. San Diego Soc. N. H., **6**, p. 296, 1931—Tecoripa and twelve miles west of Magdalena, Sonora.

*Range*.—Breeds in California, west of the Sierra Nevada, from about lat. 40° south to northern Lower California; winters over most of its breeding range, east to Arizona and western New Mexico, south to Sonora.

6: California (Lakeside, 1; Corona, 1; Monterey County, 1; Palo Alto, 2); Arizona (Phoenix, 1).

### Genus *LOXIA* Linnaeus<sup>1</sup>

*Loxia* Linnaeus, Syst. Nat., 10th ed., **1**, p. 171, 1758—type, by subs. desig. (Gray, List Gen. Bds., p. 49, 1840), *Loxia curvirostra* Linnaeus.

*Crucirostra* Leach, Syst. Cat. Mamm., etc., Brit. Mus., p. 12, 1816—type, by monotypy, *Crucirostra europaea* Leach=*Loxia curvirostra* Linnaeus.

*Curvirostra* Brehm, Ornith., **3**, p. 85, 1827—type, by tautonymy, *Loxia curvirostra* Linnaeus.

### \**Loxia curvirostra minor* (Brehm).<sup>2</sup> RED CROSSBILL.

*Curvirostra americana* (not *Loxia americana* Gmelin, 1789) Wilson, Amer. Orn., **4**, p. 44, p. 31, figs. 1, 2, 1811—pine forests of America north of 40° (type in Peale's Museum, evidently lost).

*Crucirostra minor* (Lichtenstein MS.) Brehm, Allg. Deuts. Naturhist. Zeit., **1**, p. 532 (footnote), 1846—eastern United States (type, No. 6982, in Berlin Museum; cf. van Rossem, Trans. San Diego Soc. N. H., **7**, pp. 358, 359, pl. 27, left fig., 1934; crit.); idem, Naumannia, **3**, p. 193, fig. 12, 1853—pine forest of eastern United States (full descr.).

*Loxia curvirostra minor* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 47, 1901 (monog., full bibliog., except Sitka district of Alaska).

*Range*.—Breeds in northern North America from central Alaska, northern Mackenzie, and central Quebec south to Michigan and

<sup>1</sup> Since this writing the genus *Loxia* has undergone a thorough revision by Ludlow Griscom (Proc. Bost. Soc. Nat. Hist., **41**, pp. 77–210, 1937).

<sup>2</sup> According to Griscom (l.c., p. 110), this becomes *L. c. neogaea* Griscom (type, from Lake Umbagog, Maine, in Museum of Comparative Zoology, Cambridge, Mass.).

locally and irregularly in the Alleghenies to northern Georgia (casually in Massachusetts, Maryland, and Virginia); winters irregularly south to Texas, Louisiana, and Florida; casual in Bermuda.

33: Ontario (Hamilton, 1); Maine (Parmachene Lake, 3); New York (Peterboro, 1); Massachusetts (Newton, 2); Michigan (Huron Mountains, Marquette County, 2); Wisconsin (Beaver Dam, 1; Woodruff, Vilas County, 2); Illinois (Beach, Lake County, 10; Lake Forest, 2; Chicago, 6; Joliet, 3).

**\**Loxia curvirostra pusilla* Gloger.<sup>1</sup> NEWFOUNDLAND CROSSBILL.**

*Loxia pusilla* (Lichtenstein MS.) Gloger, Vollst. Handb. Naturg. Vög. Eur., 1, p. 356 (footnote 71), 1834—North America (type, No. 6984, from "Georgia" in Berlin Museum; cf. Stresemann, Orn. Monatsber., 30, p. 41, 1922, and van Rossem, Trans. San Diego Soc. N. H., 7, p. 358, pl. 27, right fig., 1934; crit.).

*Loxia curvirostra perna* Bent, Smiths. Misc. Coll., 60, No. 15, p. 1, Dec. 12, 1912—Flatbay River, Newfoundland (type in U. S. National Museum); Noble, Bull. Mus. Comp. Zool., 62, p. 557, 1919—Nicholsville and Hobbly Hills, Newfoundland (crit.); Bent, Auk, 37, p. 298, 1920—Massachusetts (Chathamport), Rhode Island, and Virginia; Wetmore, l.c., p. 456, 1920—Four-Mile Run, Virginia; Bishop, Auk, 38, p. 587, 1921—Seabright, Halifax, Nova Scotia (breeding), and Connecticut; Sanborn, Auk, 39, p. 370, 1922—Beach, Illinois (meas.); Fleming, Auk, 47, p. 70, 1930—Toronto, Ontario (April 9); Rook, Ibis, 1935, p. 875—Newfoundland.

*Range*.—Breeds in Newfoundland and Nova Scotia; south after the breeding season to Virginia and (?)Georgia; also recorded from Ontario (Toronto), northeastern Illinois (Beach), and Iowa (Burlington).

4: Illinois (Beach, Lake County, 3); Iowa (Burlington, 1).

**\**Loxia curvirostra sitkensis* Grinnell.<sup>2</sup> SITKA CROSSBILL.**

*Loxia curvirostra sitkensis* Grinnell, Univ. Calif. Pub. Zool., 5, p. 223, Feb. 18, 1909—Windfall Harbor, Admiralty Island, Alaska (type in Museum of Vertebrate Zoology, Berkeley); Brooks, Bull. Mus. Comp. Zool., 59, p. 406, 1915—Woewodsky and Kupreanof Islands, Alaska; Willett, Condor,

<sup>1</sup>*Loxia curvirostra pusilla* Gloger: Similar to *L. c. minor*, but decidedly larger with much larger, heavier bill; slightly larger than *L. c. bendirei*, but somewhat smaller than *L. c. stricklandi*; in coloration darker than the other American races, the red color deeper and more brilliant. Wing, 90–96, (female) 89–92; tail, 54–57, (female) 50½–55; bill, 17½–19; depth of bill, 10–12.

Van Rossem having shown the type of *L. pusilla* to be referable to the large eastern Crossbill, Gloger's name must replace Bent's term *perna*, bestowed much later upon Newfoundland birds.

<sup>2</sup>*Loxia curvirostra sitkensis* Grinnell: Similar to *L. c. minor*, but slightly smaller, and coloration of adult males different, about orpiment orange, instead of deep brownish crimson or coral red. Wing (average of adult male), 85.

According to Griscom (l.c., pp. 107, 121, 1937), the correct name of the Sitka Crossbill is *L. c. minor* (Brehm).

19, p. 17, 1917—Forrester Island and Sitka, Alaska; idem, l.c., 23, p. 159, 1921—southeastern Alaska; Swarth, Univ. Calif. Pub. Zool., 24, p. 233, 1922—Sergief Island, Alaska.

*Loxia curvirostra minor* (not *Crucirostra minor* Brehm) Grinnell, Auk, 15, p. 128, 1898—Sitka; Willett, Condor, 16, p. 86, 1914—Kruzof and St. Lazaria Island, Alaska.

*Loxia americana silkensis* Swarth, Univ. Calif. Pub. Zool., 7, p. 81, 1911—Sitka district (crit.).

*Range.*—Sitka district of Alaska and southward along the coast to central California; irregularly east to the Atlantic states.

2: New York (Niles, 1; Holley, 1).

**\**Loxia curvirostra bendirei* Ridgway.<sup>1</sup> BENDIRE'S CROSSBILL.**

*Loxia curvirostra bendirei* Ridgway, Proc. Biol. Soc. Wash., 2, p. 101, April 28, 1884—"chiefly the western mountain regions of the United States, from Colorado to Oregon and California" (type, from Fort Klamath, Oregon, in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 50, 1901 (monog., full bibliog.); Oberholser, Auk, 34, p. 328, 1917 (crit., range); Swarth, Univ. Calif. Pub. Zool., 24, p. 232, 1922—Telegraph Creek, Stikine region, British Columbia; Grinnell, l.c., 32, p. 157, 1928—Lower California (visitant); Grinnell, Dixon, and Linsdale, l.c., 35, p. 404, 1930—Lassen Peak region, northern California.

*Range.*—Breeds in the mountains of the western United States from northern British Columbia, Montana, Wyoming, and Colorado to the Cascades and the Sierra Nevada, California; in winter to Nebraska, Kansas, New Mexico, the coast district of California, and casually to Lower California and Guadalupe Island.

2: California (Monterey County, 1); Colorado (unspecified, 1).

**\**Loxia curvirostra stricklandi* Ridgway. MEXICAN CROSSBILL.**

*Loxia mexicana* (not of Linnaeus, 1758) Strickland, Contrib. Orn., 1851, p. 43—Mexico (type in coll. of H. E. Strickland, now in University Museum, Cambridge, Eng.; cf. Salvin, Cat. Strickl. Coll., p. 202, 1882); Salvin, Ibis, 1866, p. 193—Chucac, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 424, 1886—Arizona, Mexico, and Guatemala.

*Loxia curvirostra stricklandi* Ridgway, Proc. U. S. Nat. Mus., 8, p. 354, Sept. 2, 1885—new name for *Loxia mexicana* Strickland, preoccupied; idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 52, 1901 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 5, p. 91, 1908—San Bernardino Mts., California; Phillips, Auk, 28, p. 87, 1911—Galindo, Tamaulipas; Grinnell and Lamb, Condor, 29, p. 125, 1927—Vallecitos (San Pedro Mártir) and Laguna Hanson (Sierra Juárez), Lower California; Huey, l.c., 29, p. 153, 1927—Laguna Hanson; idem, l.c., 30, p. 159, 1928—Laguna Hanson;

<sup>1</sup> Two more races, *L. c. benti* and *L. c. grinnelli*, have recently been distinguished by Griscom (l.c., pp. 129, 1932, 1937) from North Dakota (Grafton) and California (Phillips, Eldorado County), respectively.

Grinnell, Univ. Calif. Pub. Zool., **32**, p. 157, 1928—Lower California; Griscom, Bull. Amer. Mus. N. H., **64**, p. 357, 1932—Joyabaj, El Quiché, Guatemala.

*Range*.—Mountains of northern Lower California (Sierra San Pedro Mártir and Sierra Juárez), southern California, Arizona, New Mexico, and western Texas south through eastern Mexico to northern Guatemala (Joyabaj, El Quiché; Chuacus, Baja Vera Paz).<sup>1</sup>

7: Arizona (Chiricahua Mountains, 2); Mexico (Chihuahua, 1; Mount Orizaba, 2); British Honduras (unspecified, 2).

**\**Loxia leucoptera leucoptera* Gmelin. WHITE-WINGED CROSSBILL.**

*Loxia leucoptera* Gmelin, Syst. Nat., **1**, (2), p. 844, 1789—based on "White-winged Crossbill" Latham, Gen. Syn. Bds., **2**, (1), p. 108; Hudson's Bay and New York; Winge, Medd. Grønland, **21**, p. 296, 1899—Greenland; Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 53, 1901 (monog., full bibliog.).

*Loxia falcistrostra* Latham, Ind. Orn., **1**, p. 371, 1790—new name for *Loxia leucoptera* Gmelin.

*Loxia atrata* Homeyer, Journ. Orn., **27**, p. 179, 1879—"Nordamerika" (co-types in coll. of E. F. von Homeyer, now in Brunswick Museum).

[*Loxia bifasciata*] subsp. *a* *Loxia leucoptera* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 443, 1888 (monog.).

*Range*.—Breeds in North America from tree limit in northwestern Alaska, northern Mackenzie and Manitoba, and northern Quebec south to British Columbia, southern Alberta, Ontario, New York (Adirondacks), New Hampshire (White Mountains), southern Maine, and Nova Scotia; winters south to Oregon (Cascades), Nevada, Colorado, Kansas, Illinois, Ohio, and North Carolina; casual in Greenland, the British Isles, and Heligoland.

28: Alberta (National Park, 3; Edmonton, 2); Ontario (Hamilton, 2; Toronto, 1); Quebec (Magdalen Islands, 1); Oregon (Logan, 2); Maine (Parmachene Lake, 3); New York (Long Island, 2); Wisconsin (Beaver Dam, 1); Illinois (Beach, Lake County, 8; Lake Forest, 3).

***Loxia leucoptera megaplaga* Riley.<sup>2</sup> HISPANIOLAN CROSSBILL.**

<sup>1</sup> An undetermined race of the Red Crossbill breeds in northern Nicaragua (cf. Griscom, Bull. Amer. Mus. N. H., **64**, p. 357, 1932). It has since been described as *L. c. mesamericana* Griscom (Proc. Bost. Soc. N. H., **41**, p. 136, Jan., 1937—type, from Rancho Quemado, Honduras).

<sup>2</sup> *Loxia leucoptera megaplaga* Riley: Similar to *L. l. leucoptera*, but white wing-bands more restricted, and bill much larger and heavier. Wing, 85½–92, (female) 82–84; tail, 56–61, (female) 53–56; bill, 18–20.

The Hispaniolan form resembles the European race of the White-winged Crossbill, *L. l. bifasciata* (Brehm), in the restriction of white on the tips to the



*Loria megaplaga* Riley, Smiths. Misc. Coll., 66, No. 15, p. 1, Dec. 1, 1916—El Rio, Santo Domingo (type in U. S. National Museum); Richmond, l.c., No. 17, p. 37, fig. 39, 1917—El Rio; Chapman, Bull. Amer. Mus., N. H., 37, p. 331, 1917—Loma Rucilla and Loma Pelone, Dominican Republic; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 519, 1928—Morne La Selle, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 440, pl. 26, 1931—Hispaniola (monog.).

*Range*.—Mountains of Hispaniola, Greater Antilles.

### Genus GNATHOSPIZA Taczanowski<sup>1</sup>

*Gnathospiza* Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 230—type, by monotypy, *Gnathospiza raimondii* Taczanowski.

### *Gnathospiza raimondii* Taczanowski. TACZANOWSKI'S YELLOW FINCH.

*Gnathospiza raimondii* Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 320, pl. 36, fig. 1—Tumbez, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 173, 1927); idem, l.c., 1877, p. 750—Tumbez (habits); Berlepsch and Taczanowski, l.c., 1883, p. 549—Guayaquil, Ecuador; Taczanowski, Orn. Pér., 3, p. 6, 1886—Tumbez and Mancora (habits, range); Chapman, Bull. Amer. Mus. N. H., 55, p. 624, 1926—Santa Elena, Ecuador.

*Sycalis taczanowskii* Sharpe, Cat. Bds. Brit. Mus., 12, p. 385, 1888—Tumbez and Santa Elena (new name for *Gnathospiza raimondii* Taczanowski).

*Range*.—Arid Tropical zone of southwestern Ecuador (Santa Elena, Guayaquil) and northwestern Peru, south probably to the Chicama River, Dept. Libertad.<sup>2</sup>

### Genus SICALIS Boie<sup>3</sup>

*Sicalis* Boie, Isis, 21, p. 324, 1828—type, by subs. desig. (Cabanis, in Tschudi, Unters. Faun. Peru., Ornith., p. 215, 1846), *Emberiza brasiliensis* Gmelin = *Fringilla flaveola* Linnaeus.

*Sycalis* Cabanis, Arch. Naturg., 10, (1), p. 291, 1844—emendation of *Sicalis* Boie.

wing coverts, but has decidedly shorter wings and tail, while the bill is even stouter and more robust.

Two specimens examined.

<sup>1</sup> *Gnathospiza* appears to deserve generic separation on account of its differently shaped bill.

<sup>2</sup> *Material examined*.—Ecuador: Guayaquil, 1.—Peru: Tumbez, 2.

<sup>3</sup> We are not disposed to recognize a genus *Pseudochloris*. While admitting that certain Andean species referred to that group, such as *uropygialis*, *luteocephala*, *olivascens*, etc., have a longer wing-tip and differently shaped bills, others are so decidedly intermediate that no definite line can be drawn between "*Pseudochloris*" and *Sicalis* proper. For instance, *S. lutea* has a bill of very nearly the same shape as *S. flaveola*, while *S. citrina* (the type of *Pseudochloris*) combines the short wing-tip of *Sicalis* with the bill-character of the Andean species. Chubb's remarks on the distinguishing features of *Pseudosicalis* are quite confused, and I do not see how *S. auriventris* can be separated generically.

*Orospina* (not of Kaup, 1829) Cabanis, Journ. Orn., 31, p. 108, 1883—type, by monotypy, *Orospina pratensis* Cabanis=*Sycalis citrina* Pelzeln.

*Pseudochloris* Sharpe, Cat. Bds. Brit. Mus., 12, p. 774, 1888—new name for *Orospina* Cabanis, preoccupied.

*Serripops* Ridgway, Auk, 15, p. 225, 1898—type, by orig. desig., *Fringilla arvensis* Kittlitz=*Fringilla luteiventris* Meyen.

*Pseudosicalis* Chubb, Bull. Brit. Orn. Cl., 41, p. 78, Feb., 1921—type, by orig. desig., *Sycalis auriventris* Philippi and Landbeck.

**\**Sicalis citrina citrina* Pelzeln.<sup>1</sup> NATTERER'S GROUND FINCH.**

*Sycalis citrina* Pelzeln,<sup>2</sup> Orn. Bras., 3, pp. 232, 333, 1870—Jaguaraíba and Murungaba, Paraná, and Itararé, São Paulo, Brazil (type, from Jaguaraíba, in Vienna Museum examined); Selater, Ibis, 1872, p. 48—São Paulo (crit.).

*Orospina pratensis* Cabanis, Journ. Orn., 31, p. 108, pl. 1, fig. 1, 1883—Cordillera of Tucumán, Argentina (descr. of male; type in Berlin Museum examined); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 389, 1910—Cordilleras of Tucumán.

*Pseudochloris pratensis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 779, 1888—Tucumán (ex Cabanis); Selater and Hudson, Arg. Orn., 1, p. 71, 1888—Tucumán; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 179, 1902—Cuesta de Malamala, Tucumán (spec. in coll. of M. Lillo examined); idem, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 44, 1905—same locality (crit.).

*Pseudochloris citrina* Sharpe, Cat. Bds. Brit. Mus., 12, p. 778, 1888—part, Brazil; Ihering, Cat. Faun. Braz., 1, p. 390, 1907—São Paulo; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 82, 1910—Santo Antonio de Gilboez, Piauhý (spec. examined).

*Pseudochloris citrina citrina* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 300, 1929—Santo Antonio de Gilboez, Piauhý.

*Pseudochloris lutea* (not *Emberiza lutea* Lafresnaye and d'Orbigny) Ihering, Cat. Faun. Braz., 1, p. 391, 1907—Marianna, Minas Geraes (spec. in Museu Paulista examined; =young).

*Range*.—Campo region of Brazil, from Piauhý south to Paraná, west to Goyáz, and in Argentina (Cordilleras of Tucumán).<sup>3</sup>

2: Brazil (Rio São Miguel, Goyáz, 2).

<sup>1</sup> *Sicalis citrina* Pelzeln, in the male sex, bears a remarkable similarity to *S. pelzelni*, but aside from other differences may be easily separated by much smaller, less convex bill, and the complete absence of the yellow inner margins to the remiges. It is also not unlike *S. luteola luteola*, but differs by the white spots on the two lateral rectrices; the absence of the bright yellow supraloral and superciliary streaks, as well as of the grayish suffusion on the back; yellowish green (instead of whity gray) edges to the upper wing coverts; uniform wax yellow pileum; slenderer and longer bill.

<sup>2</sup> *Fringilla xanthorhoa* [sic] Bonaparte (Journ. Acad. Nat. Sci. Phila., 4, p. 350, April, 1825), of which no type is extant, appears to me wholly unidentifiable. It was described from "a male which lived for some time at the house of Mr. Droz of this city, who received it from Rio de Janeiro." Perhaps this was some African Weaver bird, since the author states: "This species moults twice a year." At all events, the description does not at all suggest Natterer's Ground Finch.

<sup>3</sup> Adult males from Piauhý and Goyáz agree with the typical examples from Jaguaraíba, Paraná. Birds from Tucumán, notwithstanding the widely separated

***Sicalis citrina browni* Bangs.<sup>1</sup> BROWN'S GROUND FINCH.**

*Sycalis browni* Bangs, Proc. Biol. Soc. Wash., 12, p. 139, 1898—"Santa Marta" [mountains], alt. 5,000 ft., Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 380, 1930); idem, l.c., 13, p. 102, 1899—Palomina and La Concepción, Santa Marta, Colombia (crit.); Allen, Bull. Amer. Mus. N. H., 13, p. 165, 1900 (ex Bangs).

*Sycalis citrina* (not of Pelzeln) Salvin, Ibis, 1885, p. 217—Merumé Mountains and Roraima, British Guiana.

*Pseudochloris citrina* Sharpe, Cat. Bds. Brit. Mus., 12, p. 778, 1888—part, Guiana (Merumé Mountains, Roraima) and Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 163, 1900—Onaca, Colombia.

*Pseudochloris citrina antioquia* Chapman, Bull. Amer. Mus. N. H., 36, p. 571, 1917—Barro Blanco, central Andes, Colombia (type in the American Museum of Natural History, New York).

*Pseudochloris roraimae* Chubb, Ann. Mag. Nat. Hist., (9), 7, p. 194, 1921—Roraima (type in British Museum).

*Sicalis roraimae* Chubb, Bds. Brit. Guiana, 2, p. 457, 1921—Roraima.

*Sicalis citrina browni* Todd and Carriker, Ann. Carnegie Mus., 14, p. 519, 1922—Onaca, Minca, and San Miguel, Santa Marta, Colombia (crit., habits).

*Sicalis citrina citrina* Chapman, Bull. Amer. Mus. N. H., 63, p. 119, 1931—Mount Roraima, Esmeralda Savanna (base of Mount Duida), and Cotiza (Caracas), Venezuela (crit.).

**Range.**—Tropical and Subtropical zones of British Guiana (Merumé Mountains, Roraima), Venezuela (Mount Duida; Cotiza,

habitat, do not appear to be distinguishable. While the type of *O. pratensis* has just as much (if not more) white on the two lateral tail-feathers as Brazilian specimens, another male from the region (Cuesta de Malamala, alt. 2,100 metr.) shows no white at all on the penultimate, and a mere suggestion of a faint whitish streak near the shaft of the inner web on the outermost rectrix. The under tail coverts are plain yellow (as usual) in Cabanis' type, streaked with dusky in the Malamala bird. The wings, in Brazilian males, measure 67–70, in those from Tucumán, 66–67 mm.

**Additional material examined.**—Brazil: Santo Antonio de Gilboez, Piauhys, 1; Marianna, Minas Geraes, 1; Itararé, São Paulo, 1; Jaguaraiiba, Paraná, 2; Murungaba, Paraná, 1.—Argentina, Tucumán: Cuesta de Malamala, 1; Cordillera of Tucumán, 1.

<sup>1</sup> *Sicalis citrina browni* Bangs: Exactly like *S. c. citrina*, but apparently slightly smaller. Wing (adult males), 63–67 (against 66–70); tail, 44–47 (against 47–52); bill, 8½–9.

Larger series may show this form to be inseparable, as has been intimated by Chapman. Birds from Roraima (*roraimae*) are perfectly identical with those from Colombia (*browni*). Chapman now admits that *P. c. antioquia* is merely the worn breeding plumage, and I am in fact quite unable to distinguish specimens from "Bogotá" and Barro Blanco from others in corresponding condition taken on Mount Roraima.

**Material examined.**—British Guiana: Roraima, 10.—Venezuela: La Cumbro de Valencia, Carabobo, 2.—Colombia: Onaca, 1; Minca, 1; "Bogotá," 3; Barre Blanco, 1.

Caracas; Cumbre de Valencia, Carabobo), and Colombia (Santa Marta region; Barro Blanco, central Andes; "Bogotá").<sup>1</sup>

***Sicalis lutea* (Lafresnaye and d'Orbigny).<sup>2</sup> ANDEAN YELLOW GROUND FINCH.**

*Emberiza lutea* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 74, 1837—"in summis Andibus, Bolivia" (type, from "pampas d'Oruro," Oruro, in Paris Museum examined; descr. of adult and young).

*Crithagra chloropsis* Bonaparte, Consp. Gen. Av., 1, (2), p. 521, 1850—Bolivia (in part).<sup>3</sup>

*Sycalis lutea* Sclater, Ibis, 1872, p. 46, pl. 2, fig. 2 "—part, "male," Peru and Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 607—Bolivia (ex d'Orbigny); Taczanowski, Orn. Pér., 3, p. 56, 1886—Tinta, Peru; Berlepsch and Stolzmann, Ornith., 13, p. 68, 1906—western Bolivia (crit.).

*Sycalis chloris* (not of Tschudi) Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 153—Tinta, Dept. Cuzco, Peru (in part; spec. in British Museum examined).

*Pseudochloris olivascens chloris* Chapman, Bull. U. S. Nat. Mus., 117, p. 111, 1921—part, spec. from Tirapata, Peru (crit.).

*Pseudochloris lutea* Sharpe, Cat. Bds. Brit. Mus., 12, p. 775, 1888—part, spec. b-d, Bolivia and Tinta, Peru ("adult male").

**Range.**—Puna zone of southern Peru (in depts. of Arequipa, Puno, and Cuzco) and western Bolivia (Oruro, Santiago, and Sajama, Dept. Oruro).

<sup>1</sup> Another race was recently described by Carriker (Proc. Acad. Nat. Sci. Phila., 83, p. 467, Jan., 1932) from Oconeque, Prov. Sándia, Dept. Puno, Peru, as *Sicalis citrina occidentalis*. The two specimens, females in worn breeding plumage, appear to resemble the same sex of *S. c. citrina* in having the chest streaked with dusky, but are stated to be richer yellow below with an orange tinge on the crissum, and to have brighter olive edgings on the pileum. The other points of distinction claimed by the describer are of no consequence in these birds. No measurements are given. Until adequate material comes to hand, it is hard to ascertain the significance of the divergencies shown by the two Peruvian specimens.

<sup>2</sup> *Sicalis lutea* (Lafresnaye and d'Orbigny), though confused with *S. olivascens chloris* by Sclater and Salvin, Sharpe, and others, is a very distinct species, and readily distinguished by bright olive yellow upper parts (without traces of dusky streaks) passing almost into canary yellow on the rump; bright yellow sides of head and ventral surface without any greenish tinge on the flanks; bright yellow margins to wing and tail feathers; shorter, proportionately deeper bill with more convex culmen; blackish, not pale brown legs. Wing (adult males), 82–85; tail, 54–57; bill, 10½–11½.

**Material examined.**—Peru: Tinta, Dept. Cuzco, 2; Rinconada, "Andes between Arequipa and Cuzco," 1; Colca, Calalla River, Dept. Arequipa, 1.—Bolivia: Pampas d'Oruro, 1; Santiago, Oruro, 1; Sajama, 1; unspecified, 2.

<sup>3</sup> *Crithagra chloropsis* Bonaparte comprises both *S. lutea* and *S. o. olivascens*, as is shown by the material in the Paris Museum. Of two Bolivian males marked as "type," one from Oruro is the type of *E. lutea*, the other, collected by Pentland, is *S. o. olivascens*. Bonaparte's diagnosis appears to be a composite of characters taken from the two birds. The passage "subtus flavissima" applies better to *S. lutea*, whereas the sentence "rostrum valido, recto, acuto" seems to fit *S. o. olivascens*.

<sup>4</sup> An excellent representation of the species. The bird figured is an adult male from Tinta, Peru.

**\**Sicalis uropygialis uropygialis* (Lafresnaye and d'Orbigny).  
YELLOW-RUMPED GROUND FINCH.**

*Emberiza uropigialis* (typogr. error) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 75, 1837—"in summis Andibus, Bolivia" (type, from an unspecified locality in Bolivia, examined in Paris Museum).

(?) *Crithagra pentlandi* Bonaparte, Consp. Gen. Av., 1, (2), p. 521, end of 1850—"ex Amer. Merid." (type in Paris Museum examined).

*Sycalis uropygialis* Sclater, Ibis, 1872, p. 47—Andes of Bolivia (monog.); Allen, Bull. Mus. Comp. Zool., 3, p. 354, 1876—Moho, east shore of Lake Titicaca, Bolivia; Sclater, Proc. Zool. Soc. Lond., 1886, p. 397—Huasco and Sitani, Tarapacá, Chile (spec. in British Museum examined).

*Pseudochloris uropygialis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 776, 1888—part, Bolivia; Reed, Anal. Univ. Chile, 93, p. 200, 1896—Tarapacá; Lane, Ibis, 1897, p. 23—Sacaya and Cancosa, Tarapacá, Chile; Albert, Anal. Univ. Chile, 108, p. 228, 1901—Tarapacá and "Arica," Chile (monog.); Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 44, 1905—Cumbres Calchaquies, Tucumán; Berlepsch and Stolzmann, Ornith., 13, p. 127, 1906—Puno, western shore of Lake Titicaca, Peru; Ménégau, Bull. Soc. Philom. Paris, (10), 1, p. 212, 1909—Corocoro (north of Sajama), Oruro, Bolivia; Hartert and Venturi, Nov. Zool., 16, p. 181, 1909—Cerro Muñoz, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 389, 1910—Cumbres Calchaquies, Tucumán; idem, Bol. Soc. Physis, 1, p. 358, 1914 (range in Argentina).

*Sicalis uropygialis uropygialis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 90, 1932—Antofagasta (twenty miles east of San Pedro) and Tarapacá (Chintaguai), Chile (crit.).

**Range.**—Puna and upper Temperate zones of extreme southern Peru (Lake Titicaca), Bolivia, northwestern Argentina (prov. of Jujuy and Tucumán), and northern Chile, south to Antofagasta.<sup>1</sup>

4: Chile (Chintaguai, Prov. Tarapacá, 1; east of San Pedro, Prov. Antofagasta, 1); Peru (Puno, 2).

***Sicalis uropygialis connectens* (Chapman).<sup>2</sup> INTERMEDIATE  
YELLOW-RUMPED GROUND FINCH.**

<sup>1</sup> Comparison of a fair series from various parts of the range fails to reveal any racial distinction. The sides of the face are as a rule plain ashy gray, as claimed by Chapman, though the type of *C. pentlandi* and the specimen from east of San Pedro have the cheeks and anterior auriculars olive yellow, just a little duller than the crown, thus closely resembling *S. u. connectens* of the Urubamba Valley. Specimens from the eastern end of Lake Titicaca (Chililaya), by reason of their gray sides of the head, seem decidedly referable to typical *uropygialis*. Those from the western shore (Puno City) vary, some being like *uropygialis*, others more like *connectens*.

**Additional material examined.**—Bolivia: Chililaya, 4; Chuquecamata, 1; Oruro, 1; unspecified, 2.—Chile, Tarapacá: Huasco, 1; Sitana, 2.—Argentina: Santa Catalina, Jujuy, 1; Cerro Muñoz, Tucumán, 2.—Peru: Puno, 4.

<sup>2</sup> *Sicalis uropygialis connectens* (Chapman): "Most nearly related to *S. u. uropygialis*, of Bolivia, but male with anterior portion of auriculars and, usually,

*Pseudochloris uropygialis connectens* Chapman, Bull. Amer. Mus. N. H., **41**, p. 329, Sept., 1919—La Raya, head of Urubamba Valley, Dept. Cuzco, Peru (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., **117**, p. 112, 1921—La Raya and Ttica-Ttica, Peru.

*Range*.—Puna zone of the upper Urubamba Valley, Dept. Cuzco, southeastern Peru.

**\*Sicalis uropygialis sharpei** (Berlepsch and Stolzmann).<sup>1</sup>  
SHARPE'S YELLOW-RUMPED GROUND FINCH.

*Pseudochloris sharpei* Berlepsch and Stolzmann, Ibis, (6), **6**, p. 386, 1894—"in Peruvia centrali (Junín et Ingapirca)" (type, from Ingapirca, Junín, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., **6**, p. 175, 1927); Salvin, Nov. Zool., **2**, p. 9, 1895—Cajamarca; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 351—Ingapirca and Tarma, Peru.

*Sycalis uropygialis* (not *Emberiza uropygialis* Lafresnaye and d'Orbigny) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 522—Junín; idem, Orn. Pér., **3**, p. 58, 1886—Junín.

*Pseudochloris uropygialis* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 776, 1888—part, Peru (Junín).

*Sicalis uropygialis sharpei* Zimmer, Field Mus. Nat. Hist., Zool. Ser., **17**, p. 469, 1930—La Quinua, Junín, and Huánuco Viejo, Huánuco, Peru (crit.).

*Range*.—Puna zone of central and northern Peru, from Junín north to Cajamarca.

8: Peru (Huánuco Viejo, Huánuco, 3; La Quinua, Junín, 1; Junín, 4).

**Sicalis luteo-cephala** (Lafresnaye and d'Orbigny).<sup>2</sup> YELLOW-HEADED GROUND FINCH.

region below the eye olive-yellow, and yellow more extensive on sides and flanks; female with the head yellower than in *S. u. uropygialis*." (Chapman, l.c.)

Two males from La Raya, the only ones we have seen of this form, merely differ from individuals of *uropygialis* with yellow anterior ear coverts by the slightly lesser extent of the gray area on the sides of the body, whereby they mark a step in the direction of *S. u. sharpei*. Perhaps this form, if maintainable, should be called *S. u. pentlandi*, but we hesitate to employ this name until we have learned something definite about Pentland's travels.

<sup>1</sup> *Sicalis uropygialis sharpei* (Berlepsch and Stolzmann): Differs in the adult male from *S. u. uropygialis* by slightly smaller size, generally longer bill, and by lacking the grayish area on the flanks. While the sides of the head are as a rule olive yellowish like the crown, our male from La Quinua has the posterior auriculars distinctly grayish.

A single male from Cajamarca agrees pretty well with others from Junín.

<sup>2</sup> *Sicalis luteo-cephala* (Lafresnaye and d'Orbigny), in the male sex, is immediately distinguished from *S. u. uropygialis* by having the hindcrown, nape, rump, and upper tail coverts gray, the lesser wing coverts and the edges to the remiges olive-yellow, etc. Wing, 80–82; tail, 59–61; bill, 10–11. Female unknown to the author.

*Material examined*.—Bolivia: Totorá, Cochabamba, 1; Chuquisaca, 1; unspecified, 2.

*Emberiza luteo-cephala* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 74, 1837—"Chuquisaca, rep. Boliviana" (type, from Totorá, near Mizque, Cochabamba, in Paris Museum examined; part, descr. of male);<sup>1</sup> d'Orbigny, Voy. Amér. Mérid., Ois., p. 360, pl. 44, fig. 2 (=male), 1844—"sur toutes les montagnes du versant oriental de la Cordillère, depuis Cochabamba et Valle Grande jusqu'à Chuquisaca," Bolivia.

*Criithagra luteocephala* Bonaparte, Consp. Gen. Av., 1, (2), p. 521, 1850 (descr. of male).

*Sycalis luteocephala* Sclater, Ibis, 1872, p. 46—Bolivia (monog.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 607—Cochabamba, Valle Grande, and Chuquisaca (ex d'Orbigny).

*Pseudochloris luteocephala* Sharpe, Cat. Bds. Brit. Mus., 12, p. 776, 1888—Bolivia.

*Range*.—Highlands of central Bolivia, in depts. of Cochabamba (Cochabamba, Valle Grande, Totorá) and Chuquisaca (Sucre).

**\**Sicalis auriventris* Philippi and Landbeck.<sup>2</sup> YELLOW-BELLIED GROUND FINCH.**

*Sycalis auriventris* Philippi and Landbeck, Arch. Naturg., 30, (1), p. 49, 1864—Cordilleras of the province of Santiago, Chile (types in Museo Nacional, Santiago; cf. Gigoux and Looser, Bol. Mus. Nac. Santiago, 13, p. 19, 1930); Landbeck, Zool. Garten, 18, p. 255, 1877—Prov. Santiago (habits).

*Sycalis aureiventris* Landbeck, Anal. Univ. Chile, 24, p. 342, 1864—Cordilleras of Santiago (habits); Sclater, Proc. Zool. Soc. Lond., 1867, pp. 323, 338—Chile (crit.); Philippi, Anal. Univ. Chile, 31, p. 264, 1868—Cordilleras of the central provinces of Chile; Sclater, Ibis, 1872, p. 47, pl. 3—Cordilleras of Santiago (monog.); Reed, Anal. Univ. Chile, 49, p. 545, 1877—Valle de los Cipresos and Valle del Yeso, Colchagua, Chile; Philippi, Anal. Mus. Nac. Chile, 15, p. 57, pl. 19, fig. 1, 1902—Cordilleras of central provinces of Chile.

*Emberiza luteocephala* (not of Lafresnaye and d'Orbigny) Bridges, Proc. Zool. Soc. Lond., 9, p. 113, 1841—"the elevated valleys of the Andes [of Colchagua], east and west sides."

*Pseudochloris aureiventris* Sharpe, Cat. Bds. Brit. Mus., 12, p. 777, 1888—Chile (Province of Santiago) and "Bolivia" [=Mendoza]; Reed, Anal. Univ. Chile, 93, p. 200, 1896—Chile; Albert, l.c., 108, p. 226, 1901—Cordilleras of Chile (monog.); Barros, Rev. Chil. Hist. Nat., 25, p. 188, 1921—Cordillera of Aconcagua.

<sup>1</sup> The alleged females pertain to *S. flaveola pelzelni* Sclater.

<sup>2</sup> *Sicalis auriventris* Philippi and Landbeck, a very distinct species, is perhaps most nearly related to *S. luteo-cephala*, but in addition to other characters is readily distinguished by its large size.

Birds from the Mendoza side of the Andes (*incae*) are nowise different. The seemingly more "saturated" coloration of the specimens described by Chubb is merely due to their greasy condition.

*Additional material examined*.—Chile: Cajón de Castro, Aconcagua, 1; Cordilleras of Santiago, 5; unspecified, 2.—Argentina: Puente del Inca, Mendoza, 3.

*Sycalis lutea* (not *Emberiza lutea* Lafresnaye and d'Orbigny) Gosse, in Fitzgerald, *The Highest Andes*, p. 352, 1899—"Lujan, south of Mendoza" (spec. examined).

*Pseudochloris lutea* Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 389, 1910—part, Cordillera of Mendoza (ex Gosse).

*Pseudochloris aureiventris incae* Chubb, *Bull. Brit. Orn. Cl.*, 39, p. 71, Mar., 1919—Puente del Inca, Aconcagua Valley, Mendoza (type in British Museum examined).

*Pseudosicalis aureiventris* Peters, *Bull. Mus. Comp. Zool.*, 65, p. 331, 1923—Huanuluan, western Rio Negro.

*Pseudochloris aureiventris mendozae* (not of Sharpe) Barros, *Rev. Chil. Hist. Nat.*, 34, p. 319, 1930—Puente del Inca, Mendoza.

*Sicalis auriventris* Stone, *Rep. Princ. Univ. Exp. Patag.*, 2, p. 833, 1928—Huanuluan, Rio Negro; Hellmayr, *Field Mus. Nat. Hist.*, Zool. Ser., 19, p. 91, 1932—Antofagasta (east of San Pedro), Coquimbo (Baños del Toro), and Santiago (San José de Maipo), Chile.

*Range*.—Upper Temperate and Puna zones of Chile (from Antofagasta to Colchagua) and the adjoining section of Argentina (from west of Mendoza to the region south of Lake Nahuel Huapi).

7: Chile (twenty miles east of San Pedro, Antofagasta, 1; Baños del Toro, Coquimbo, 4; Cajón de Castro, Aconcagua, 1; San José de Maipo, Santiago, 1).

**\**Sicalis olivascens salvini* (Chubb).<sup>1</sup> SALVIN'S GREENISH GROUND FINCH.**

*Pseudochloris salvini* Chubb, *Bull. Brit. Orn. Cl.*, 39, p. 70, Mar. 31, 1919—Viña, Huamachuco, Peru (type in British Museum examined).

*Pseudochloris lutea*(?) (not *Emberiza lutea* Lafresnaye and d'Orbigny) Salvin, *Nov. Zool.*, 2, p. 9, 1895—Viña and Chusgon, Huamachuco, Peru.

*Sicalis olivascens salvini* Zimmer, *Field Mus. Nat. Hist.*, Zool. Ser., 17, p. 469, 1930—Huánuco, Peru (crit.).

*Range*.—Temperate zone of northern Peru, from the upper Marañón Valley (Huamachuco) south to Huánuco.

2: Peru (Huánuco, 2).

<sup>1</sup> *Sicalis olivascens salvini* (Chubb): Similar in coloration to *S. olivascens chloris*, but decidedly smaller, with shorter, blunter bill. Wing, 73–75, (female) 73–76; tail, 47–53; bill, 10–11.

The two Huánuco birds are unquestionably the same as the original series of *P. salvini*, with which they have been directly compared. The type and two other males collected by Baron are immature, the females are in very worn breeding plumage. The series merely differs from *S. o. chloris* in comparable condition by smaller size and shorter, thicker bill.

*Additional material examined*.—Peru: Chusgon, Huamachuco, 2; Viña, Huamachuco, 3; Otuzco, 1.



**\**Sicalis olivascens chloris* Tschudi.<sup>1</sup> TSCHUDI'S GREENISH GROUND FINCH.**

*Sycalis chloris* (Cabanis MS.) Tschudi, Unters. Faun. Peru., Ornith., p. 216, 1846—Peru, we suggest Matucana, above Lima (type in Berlin Museum examined);<sup>2</sup> Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 568—Arequipa, Peru (spec. examined); Taczanowski, Orn. Pér., 3, p. 57, 1886—part, Arequipa and Andes of Lima, Peru.

*Sycalis lutea* (not *Emberiza lutea* Lafresnaye and d'Orbigny) Selater, Ibis, 1872, p. 46—part, "female," western Peru; idem, Proc. Zool. Soc. Lond., 1881, p. 487—Cordillera above Lima (alt. 8,000 ft.).

*Pseudochloris lutea* Sharpe, Cat. Bds. Brit. Mus., 12, p. 775, 1888—part, spec. e-h, Arequipa and Andes of Lima.

*Sycalis aureiventris* (not of Landbeck) Selater, Proc. Zool. Soc. Lond., 1886, p. 397—Chumisa, Tarapacá, Chile (spec. examined); Gigoux, Rev. Hist. Nat., 28, p. 84, 1924—Caldera, Atacama, Chile.

*Pseudochloris aureiventris* Selater, Proc. Zool. Soc. Lond., 1891, p. 133—Sacaya, Tarapacá, Chile; Lane, Ibis, 1897, p. 23—Andean valleys of Tarapacá.

*Pseudochloris chloris* Albert, Anal. Univ. Chile, 108, p. 225, 1901—Tarapacá and "Arica" (monog.).

*Pseudochloris olivascens chloris* Berlepsch and Stolzmann, Ornith., 13, p. 68, 1906—Pauza, Ayacucho, Peru (spec. examined).

*Sicalis olivascens chloris* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 468, 1930—Matucana, above Lima, Peru (crit.); Hellmayr, l.c., 19, p. 92, 1932—Antofagasta (east of San Pedro) and Atacama (Domeyko), Chile (crit.).

*Range.*—Temperate zone of the western Cordillera (de la Costa) of Peru, from above Lima southwards, and northern Chile, south to Atacama.

14: Peru (Matucana, 2); Chile (east of San Pedro, Antofagasta, 7; Domeyko, Atacama, 5).

<sup>1</sup> *Sicalis olivascens chloris* Tschudi is exceedingly similar to the nominate race, but has a slightly shorter tail and a rather stronger bill, while the under parts, as a rule, are of a somewhat duller, more *greenish* yellow tone in the male sex. The differences are not very strongly pronounced, and should be corroborated by larger series. Birds from northern Chile agree in proportions and coloration with those from western Peru, and do not appear to be separable. Wing, 78–86, (female) 78–83; tail, 50–57, (female), 50–55; bill, 10–11.

*Additional material examined.*—Peru: San Mateo, Dept. Lima (alt. 3,200 metr.), 2; Cordillera above Lima (alt. 8,000 ft.), 1; unspecified, 1 (the type); Pauza (alt. 7,300 ft.), Ayacucho, 2; Arequipa, 3.—Chile: Chumisa, Tarapacá, 1.

<sup>2</sup> The type, No. 885, Berlin Museum, is labeled, evidently by error, "Cinchon-forests." It was collected by B. Philippi, who is known to have traveled from Lima to Maraynioc and thence down to the tropical forests. This Ground Finch does not occur in the forests, and as the type is a perfect match to specimens from the Coast Cordillera, Matucana may be substituted as a more likely *terra typica*.

***Sicalis olivascens berlepsi* (Ménégaux).<sup>1</sup> BERLEPSCH'S GREENISH GROUND FINCH.**

*Pseudochloris olivascens berlepsi* Ménégaux, Bull. Soc. Philom. Paris, (10), 1, p. 212, 1909—Pulacayo, Lake Poopó, Dept. Oruro, Bolivia (type in Paris Museum examined); idem, Rev. Franç. d'Orn., 1, p. "124" [=134], Jan., 1910 (reprint).

*Sicalis olivascens berlepsi* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 94 (in text), 1932—Oruro and Pulacayo, Oruro, Bolivia (crit.).

*Range*.—Temperate zone of western Bolivia, in Dept. Oruro (Oruro; Pulacayo, Lake Poopó).

***Sicalis olivascens olivascens* (Lafresnaye and d'Orbigny). BOLIVIAN GREENISH GROUND FINCH.**

*Emberiza olivascens* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 75, 1837—La Paz, Bolivia (descr. of male and female; type [female] in Paris Museum examined).<sup>2</sup>

*Crithagra chloropsis* Bonaparte, Consp. Gen. Av., 1, (2), p. 521, 1850—Bolivia (in part).<sup>3</sup>

*Sycalis chloris* (not of Tschudi) Selater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 153—Tinta, Dept. Cuzco, Peru (in part; spec. in British Museum and Vienna Museum examined); (?) Taczanowski, l.c., 1874, p. 522—Huanta, Ayacucho; idem, Orn. Pér., 3, p. 57, 1886—part, Tinta and (?) Huanta.

*Sycalis lutea* (not *Emberiza lutea* Lafresnaye and d'Orbigny) Selater, Ibis, 1872, p. 46—part, "female," Bolivia; (?) Allen, Bull. Mus. Comp. Zool., 3, p. 354, 1876—Moho, east side of Lake Titicaca.

*Pseudochloris lutea* Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—"Valparaíso," errore= Bolivia (spec. examined); (?) Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 351—Tarma and Jauja, Dept. Junín, Peru.

*Pseudochloris olivascens* Berlepsch and Stolzmann, Ornith., 13, p. 127, 1906—Puno, west shore of Lake Titicaca.

*Pseudochloris olivascens chloris* Chapman, Bull. U. S. Nat. Mus., 117, p. 111, 1921—part, Pisac, Urubamba, Peru.

<sup>1</sup> *Sicalis olivascens berlepsi* (Ménégaux): Very similar to *S. o. olivascens*, but with decidedly longer wings and tail. The type is by no means brighter yellow beneath than the average of *S. o. chloris*, while an adult male from Oruro fully attains the intensity of *S. o. olivascens*. A very doubtfully separable form, whose claims to recognition need confirmation by adequate material. Wing (adult males), 90, 92; tail, 60, 63; bill, 10½–11½.

*Material examined*.—Bolivia: Pulacayo, Lake Poopó, 2; Oruro, 1.

<sup>2</sup> The male type is no longer to be found in the French National Collection.

<sup>3</sup> Cf. footnote 3 on page 309.

*Range*.—Temperate and Puna zones of northwestern Bolivia (depts. La Paz and Cochabamba) and southeastern Peru (Dept. Cuzco).<sup>1</sup>

**\**Sicalis olivascens sordida* (Chapman).<sup>2</sup> ARGENTINE GREENISH GROUND FINCH.**

*Pseudochloris olivascens sordida* Chapman, Bull. Amer. Mus. N. H., 41, p. 330, 1919—Tilcara, Jujuy, Argentina (type in the American Museum of Natural History, New York).

*Pseudochloris stewarti* Chubb, El Hornero, 3, pp. 34, 35, pl. 1, figs. 1, 2 (male, female), 1923—Gualfin, Prov. Catamarca, Argentina (type in British Museum examined).

*Pseudochloris uropygialis* (not *Emberiza uropygialis* Lafresnaye and d'Orbigny) Baer, Ornith., 12, p. 217, 1904—Lara, Tucumán (spec. in Paris Museum examined).

*Pseudochloris aureiventris* (not *Sycalis auriventris* Philippi and Landbeck) Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 44, 1905—Cerro Muñoz, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 389, 1910—Cerro Muñoz.

*Pseudochloris lutea* (not *Emberiza lutea* Lafresnaye and d'Orbigny) Lönnberg, Ibis, 1903, p. 451—Moreno, Puna de Jujuy; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 389, 1910—part, Catamarca, Salta, and Jujuy.

*Pseudochloris aureiventris mendozae* (not of Sharpe) Hartert and Venturi, Nov. Zool., 16, p. 181, 1909—Tucumán (Cerro Muñoz) and Jujuy (Angosta Perchela, Tilcara) (spec. examined).

*Sicalis olivascens sordida* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 95 (in text), 1932 (crit., range).

*Range*.—Puna zone of northwestern Argentina, in provinces of Catamarca, Tucumán, Salta, and Jujuy.

2: Argentina (Maimará, Jujuy, 2).

<sup>1</sup> Specimens from southeastern Peru (Tinta; Lucre, Cuzco; Urubamba) agree in every respect with a topotypical series from La Paz. Not having seen any material from either Junín or northern Ayacucho (Huanta), I am in doubt as to which form is found in these parts of Peru. An adult male from "near Valparaíso, 1885" collected by H. H. Rusby is perfectly typical of the present race, and certainly never came from Chile.

*Material examined*.—Bolivia: La Paz, 9; Tapacari, Cochabamba, 2; unspecified, 2.—Peru: Tinta, 2; Lucre, Cuzco, 1; Urubamba (alt. 10,000 ft.), Cuzco, 1.

<sup>2</sup> *Sicalis olivascens sordida* (Chapman): Exceedingly close to *S. o. olivascens*, but perhaps separable in the male sex by somewhat duller upper and under parts with more olivaceous shading on the throat, chest, and sides. Size about the same. Wing, 83–87, (female) 81–86; tail, 54–60, (female) 52–56.

Direct comparison of the type with Jujuy specimens proves *P. stewarti* to be an absolute synonym of *sordida*.

*Additional material examined*.—Jujuy: Tilcara, 2; Angosta Perchela, Jujuy, 1; Cerro Muñoz, Tucumán, 1; Lara, Tucumán, 2; Gualfin, Catamarca, 1; Corral Quemado, Catamarca, 1; Antofagasta, Catamarca, 1; Lago Helado, Catamarca, 1.

***Sicalis olivascens mendozæ* (Sharpe).<sup>1</sup> MENDOZA GREENISH GROUND FINCH.**

*Pseudochloris mendozæ* Sharpe, Cat. Bds. Brit. Mus., 12, p. 778, 1888—Mendoza, Argentina (type in British Museum examined).

*Sycalis chloropsis* (not *Crithagra chloropsis* Bonaparte) Burmeister,<sup>2</sup> Journ. Orn., 8, p. 257, 1860—Mendoza (descr. of male and female; spec. in Halle Museum examined); idem, Reise La Plata St., 2, p. 489, 1861—Mendoza and "Catamarca"; Sclater, Ibis, 1872, p. 47 (crit.).

*Sycalis chloropsis* Sclater, Cat. Coll. Amer. Bds., p. 126, 1862—part, spec. b, Mendoza.

*Pseudochloris aureiventris mendozæ* Sanzin, El Hornero, 1, p. 152, 1918—Las Cuevas, Mendoza.

*Pseudochloris lutea* (not *Emberiza lutea* Lafresnaye and d'Orbigny) Sharpe, Cat. Bds. Brit. Mus., 12, p. 775, 1888—part, spec. a, "Pampas Argentinas" (spec. examined).

*Sicalis lutea* Wetmore, Bull. U. S. Nat. Mus., 133, p. 403, 1926—near Potrerillos, Mendoza.

**Range.**—Western Argentina, in Province of Mendoza (Mendoza, Las Cuevas, Potrerillos).

***Sicalis lebruni* (Oustalet).<sup>3</sup> LEBRUN'S GROUND FINCH.**

*Pseudochloris lebruni* Oustalet, Miss. Sci. Cap Horn, 6, p. B98, 1891—Misioneros, Terr. Santa Cruz, Patagonia (type in Paris Museum examined).

<sup>1</sup> *Sicalis olivascens mendozæ* (Sharpe): Similar in coloration to *S. o. sordida*, but considerably smaller. Wing, 76–78, (female) 76–77; tail, 51–53; bill, 10.

This little-known form, which has been recorded only from the vicinity of the city of Mendoza, is merely a smaller edition of *S. o. sordida*, its coloration being exactly the same. The female bears some likeness to that of *S. lebruni*, and sometimes has just as little yellow beneath; it is, however, slightly smaller and much darker, less grayish, on the upper parts.

**Material examined.**—Argentina: Mendoza, 5; "Pampas Argentinas," 1.

<sup>2</sup> Although one of the specimens labeled "*S. chloropsis*" in the Halle Museum pertains to *S. flaveola pelzelni*, Burmeister's description clearly refers to the present form. There are two males at Halle, and one male and one female in the British Museum from his trip to Argentina, all marked "Mendoza," but none from Catamarca. The spelling "*chloropsis*" seems to be merely a slip for *chloropsis*, since Bonaparte is quoted as author of the specific name.

<sup>3</sup> *Sicalis lebruni* (Oustalet), while about the same size as *S. o. sordida*, differs from the *S. olivascens* group by grayish (instead of olive yellow) outer margins to the remiges; nearly whitish tail-edging; grayish flanks; largely white-tipped under tail coverts, etc. In the male sex, it is not unlike *S. auriventris*, but, in addition to its smaller size, it differs by decidedly weaker bill; duller greenish yellow (instead of bright yellow) pileum; mainly gray (not wholly greenish yellow) upper tail coverts; broad ashy-gray apical spots to the dorsal feathers; much lighter yellow under surface with grayish sides of the belly and white anal patch; largely white under tail coverts. The female is much smaller, the bill decidedly so, and the under parts are paler, less suffused with yellow. Until its breeding range is worked out, it may provisionally be regarded as a separate species of rather uncertain affinities. Wing, 81–85, (female) 78–84; tail, 53–57; bill, 10–11.

**Material examined.**—Santa Cruz: Misioneros, 1 (the type); Valle del Lago Blanco, Chubut, 6; Huanuluan, Rio Negro, 2; Maquinchao, Rio Negro, 2.

*Pseudosicalis lebruni* Peters, Bull. Mus. Comp. Zool., **65**, p. 332, 1923—Huanuluan and Maquinchao, western Rio Negro (nesting).

*Sicalis lebruni* Wetmore, Univ. Calif. Pub. Zool., **24**, p. 458, 1926—Rio Negro (Arroyo Las Bayas and Lago Carilaufquen) and Santa Cruz (Rio Gallegos and Coy Inlet), Patagonia; Stone, Rep. Princet. Univ. Exp. Patag., **2**, p. 833, 1928—Santa Cruz and Rio Gallegos; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., **19**, p. 95 (in text), 1932—Patagonia (crit.).

*Range*.—Patagonia, from Santa Cruz north to western Rio Negro.

***Sicalis columbiana*<sup>1</sup> *columbiana* Cabanis. VENEZUELAN  
YELLOW FINCH.**

*Sycalis columbiana* Cabanis, Mus. Hein., **1**, p. 147, October, 1851—"Porto Cabello," errore; we suggest Ciudad Bolívar, Rio Orinoco, Venezuela (types in Heine Collection, now in Municipal Museum, Halberstadt, examined; descr. of male and female); Selater, Cat. Coll. Amer. Bds., p. 126, 1862 "Trinidad" and Venezuela; idem, Ibis, 1872, p. 43—part, Venezuela ("Porto Cabello"); Berlepsch, Ibis, 1884, p. 433—Angostura, Orinoco (descr. of female); Sharpe, Cat. Bds. Brit. Mus., **12**, p. 379, 1888—part, spec. a, b, Venezuela and "Trinidad"; Berlepsch and Hartert, Nov. Zool., **9**, p. 28, 1902—Altagracia, Rio Orinoco, and Caura Valley (Suapuré, La Prición), Venezuela.

*Sicalis columbiana* Ihering, Cat. Faun. Braz., **1**, p. 381, 1907—part, Venezuela.

*Sicalis colombiana* Stone, Proc. Acad. Nat. Sci. Phila., **65**, p. 209, 1913—La Pedrita (Rio Uracoa) and Caño Corozal, Orinoco Delta.

*Sicalis columbiana columbiana* Hellmayr, Nov. Zool., **14**, p. 8, 1907—Venezuela ("Porto Cabello"; Orinoco and Caura Valleys) (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., **2**, p. 193, 1916—Orinoco region (descr. of plumages, nest, and eggs).

*Range*.—Valley of the Orinoco and its affluents from the delta region up to San Fernando de Apure, Venezuela.<sup>2</sup>

**\**Sicalis columbiana leopoldinae* Hellmayr.<sup>3</sup> ARAGUAYA YELLOW  
FINCH.**

<sup>1</sup> *Sicalis columbiana*, a very distinct species, differs in the male sex from *S. flaveola* by much lesser dimensions; much smaller bill; darker, less yellowish green back without any trace of dusky streaking; by the broad bright yellow inner margin to the remiges being replaced by a narrow, rather indistinct, whitish fringe, etc. Furthermore, the female is quite differently colored, being pale brown above, and white below tinged with buffy anteriorly and laterally, while in *S. f. flaveola* the sexes are nearly alike in coloration.

<sup>2</sup> Birds from the Caura Valley agree with an Orinocan series. We have called attention to the fact that various Orinocan species described by Cabanis in the "Museum Heineanum" are wrongly assigned to "Porto Cabello" [=Puerto Cabello], this locality evidently serving as their shipping port. "Trinidad" is another unreliable record for the present species.

*Material examined*.—Venezuela: Angostura, 1; Altagracia, Rio Orinoco, 6; Quiribana de Caicara, Orinoco, 1; La Vuelta, Caura, 1; Suapuré, Caura, 4; La Unión, Caura, 1; La Prición, Caura, 3; San Fernando de Apure, 2.

<sup>3</sup> *Sicalis columbiana leopoldinae* Hellmayr: Similar to *S. c. columbiana*, but with shorter wings and much smaller bill; male slightly more yellowish green

*Sicalis columbiana leopoldinae* Hellmayr, Bull. Brit. Orn. Cl., 16, p. 85, April, 1906—Leopoldina, Rio Araguaya, Goyáz, Brazil (type in Tring Collection, now in the American Museum of Natural History, New York); Ihering, Cat. Faun. Braz., 1, p. 381, 1907—Leopoldina; Hellmayr, Nov. Zool., 14, p. 9, 1907—Leopoldina (crit.); idem, l.c., 15, p. 34, 1908—Rio Araguaya, Goyáz; idem, Field Mus. Nat. Hist., Zool. Ser., 12, p. 299, 1929—Tronco Falls, below Nova York, Rio Parnahyba, Piauhý (crit.).

*Sycalis arvensis minor* (not *Sycalis minor* Cabanis) Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—part, Nos. 296, 1181, Joazeiro, Bahia, and Tronco Falls, Rio Parnahyba, Piauhý (spec. examined).

*Sycalis arvensis* (not *Fringilla arvensis* Kittlitz) Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 178, 1925—part, Tronco Falls, Piauhý.

*Range*.—River banks in the interior of Brazil, in states of Goyáz (Leopoldina, Rio Araguaya), Bahia (Joazeiro, Rio São Francisco; São Marcello, Rio Preto), and Piauhý (Tronco Falls, below Nova York, Rio Parnahyba).

1: Brazil (São Marcello, Rio Preto, Bahia, 1).

**\**Sicalis columbiana goeldii* Berlepsch.<sup>1</sup> GOELDI'S YELLOW FINCH.**

*Sicalis goeldii* Berlepsch, Bull. Brit. Orn. Cl., 16, p. 97, May, 1906—"Santarém"—Paricatúba, south bank of Amazon, west of the junction of the Rio Tapajóz, Brazil (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined); idem, Ornith., 14, p. 350, 1907—Paricatúba (full descr.); Ihering, Cat. Faun. Braz., 1, p. 381, 1907—Santarém; Naumburg, Bull. Amer. Mus. N. H., 60, p. 352, 1930—Rio Solimões and Calama, Rio Madeira.

above with the frontal patch brighter, fiery orange, and without any greenish tinge on the sides of the chest; female paler, upper parts more grayish, and the ventral surface less shaded with brownish on chest and sides. Wing, 58, (female) 55–58; tail, 40–42; bill, 9–10.

From Bahia and Piauhý females only being available, their subspecific status cannot be determined at present with absolute finality.

*Additional material examined*.—Brazil: Leopoldina, Goyáz, 5; Joazeiro, Rio São Francisco, Bahia, 1; Tronco Falls, Rio Parnahyba, Piauhý, 1.

<sup>1</sup> *Sicalis columbiana goeldii* Berlepsch: Agreeing in large bill with *S. c. columbiana*, but male with lower parts of a much deeper cadmium yellow to cadmium orange tone, this color also spreading over the cheeks and auriculars, both of which are yellowish-olive like the back in the two other races; the fiery orange of the forehead is even brighter than in *S. c. leopoldinae* and extends over the whole vertex; the hindneck and rump are much brighter yellow, and the remiges are interiorly more distinctly edged with yellowish. Female similar in paleness of under parts to that of *S. c. leopoldinae*, but with much larger bill; the flanks washed with buffy yellowish, the axillaries and under wing coverts more yellowish, and the whitish inner margin to the remiges more conspicuous. Wing, 58–63, (female) 57–59; tail, 40–45, (female) 38–42; bill, 11–12.

Two adult males from Yana-yaco, Peru, do not differ from Brazilian birds, so far as I can see.

*Additional material examined*.—Brazil: Paricatúba, south bank of lower Amazon, 2; Itaitúba, Rio Tapajóz, 2; Urucuritúba, Rio Tapajóz, 7; Obidos, 1; Manáos, 8.—Peru: Yana-yaco, 2.

*Sycalis brasiliensis* (not *Emberiza brasiliensis* Gmelin) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 573—north side of the Amazons [= Monte Alegre].

*Sycalis columbiana* (not of Cabanis) Pelzeln, Orn. Bras., 3, p. 231, 1870—Barra do Rio Negro [= Manáos] (spec. examined); Sclater, Ibis, 1872, p. 43—part, Barra do Rio Negro; Allen, Bull. Essex Inst., 7, p. 79, 1876—Santarém; Sharpe, Cat. Bds. Brit. Mus., 12, p. 379, 1888—part, spec. c-e, Barra do Rio Negro; Chapman and Riker, Auk, 7, p. 268, 1890—Santarém.

*Sicalis columbiana* Ihering, Cat. Faun. Braz., 1, p. 381, 1907—part, Rio Negro.

*Sycalis goeldii* Snethlage, Journ. Orn., 55, p. 297, 1907—Maracá and Monte Alegre, Brazil; idem, Bol. Mus. Goeldi, 8, p. 432, 1914—Rio Tapajóz (Boim, Pinhel), Maracá, Monte Alegre, Ereré, and Rio Jamundá (Faro).

*Sicalis columbiana goeldii* Hellmayr, Nov. Zool., 14, pp. 8, 9, 1907—Rio Tapajóz (Urucuritúba and Itaitúba), Manáos, and Yana-yaco, Peru (crit.); idem, l.c., p. 30, 1907—Obidos.

*Range*.—Northern Brazil, on the banks of the Amazon and its tributaries, from the Rio Maracá and the Rio Tapajóz westwards, south to the Rio Madeira (Calama), and the adjacent parts of northeastern Peru (Rio Yana-yaco, an affluent of the Rio Ucayali).

3: Brazil (Itacoatiará, Amazonas, 3).

### ***Sicalis flaveola jamaicae* Sharpe.<sup>1</sup> JAMAICAN YELLOW FINCH.**

*Sycalis jamaicae* Sharpe, Cat. Bds. Brit. Mus., 12, p. 523, 1888—Jamaica (type in British Museum); Cory, Cat. W. Ind. Bds., pp. 113, 130, 151, 1892—Jamaica.

*Crithagra brasiliensis* (not *Emberiza brasiliensis* Gmelin) Gosse, Bds. Jamiaca, p. 245, 1847—Mount Edgecumbe, Auchindown, Culloden, and Peter's Vale, eastern Westmoreland (introduced); idem, Illust. Bds. Jamaica, pl. 61, 1849.

*Crithagra braziliensis* March, Proc. Acad. Nat. Sci. Phila., 1863, p. 298—neighborhood of Hodge's Pen and Long Hill, Jamaica.

*Sycalis brasiliensis* Sclater, Proc. Zool. Soc. Lond., 1861, p. 74—Jamaica.

*Sycalis flaveola* (not *Fringilla flaveola* Linnaeus) Sclater, Ibis, 1872, p. 41—part, Jamaica; Danforth, Auk, 45, p. 490, 1928—Constant Spring, eastern Jamaica.

*Sicalis flaveola* Cory, Auk, 3, p. 213, 1886—Jamaica; idem, Bds. W. Ind., p. 100, 1889—Jamaica.

<sup>1</sup> *Sicalis flaveola jamaicae* Sharpe: Adult male similar to the Brazilian race of *S. flaveola*, but brighter yellow throughout, particularly below, and the orange crown patch farther extended toward the nape.

Although there seems hardly any doubt that the bird was originally introduced to the island, where it has since gained rather a wide distribution, I cannot avoid recognizing the form, as three adult males from Jamaica differ from any continental individual by their brighter yellow coloring and more extensive orange crown-patch.

*Sycalis flava* (not *Fringilla flava* P. L. S. Müller) A. and E. Newton, Handb. Jamaica, p. 117, 1881—Jamaica.

*Sycalis flaveola jamaicae* Scott, Auk, 10, p. 179, 1893—Jamaica.

*Sicalis jamaicae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 523, 1901—Jamaica.

*Range*.—Island of Jamaica, Greater Antilles.

**\**Sicalis flaveola valida* Bangs and Penard.<sup>1</sup> PACIFIC YELLOW FINCH.**

*Sicalis flaveola valida* Bangs and Penard, Bull. Mus. Comp. Zool., 64, p. 396, Jan., 1921—Sullana, Dept. Piura, Peru (type in Museum of Comparative Zoology, Cambridge, Mass.); Chapman, Bull. Amer. Mus. N. H., 55, p. 623, 1926—Guayaquil, Santa Rosa, Porto Velo, Casanga, Lunamá, Rio Pindo, and Loja, Ecuador (crit.).

*Sycalis flaveola* (not *Fringilla flaveola* Linnaeus) Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 322—Tumbez, Peru; idem, l.c., 1879, p. 244—Tumbez (eggs descr.); idem, l.c., 1880, p. 199—Callacate, Peru; Berlepsch and Taczanowski, l.c., 1883, p. 552—Yaguachi, Ecuador (crit.); Taczanowski, Orn. Pér., 3, p. 55, 1886—Peru (Guadalupe, Nancho, Paucal, Tumbez, Chepen, Callacate, Guajango); Sharpe, Cat. Bds. Brit. Mus., 12, p. 377, 1888—part, spec. y, z, Tumbez; Salvin, Nov. Zool., 2, p. 7, 1895—Tembladera, Peru; Ménégau, Rev. Franç. d'Orn., 2, p. 9, 1911—Choquisongo, northeast of Otuzco, Peru.

*Sicalis flaveola* Bangs and Noble, Auk, 35, p. 462, 1918—Sullana, Huancabamba, and Bellavista, Peru.

*Range*.—Tropical zone of southwestern Ecuador (from the Guayaquil district southward) and northwestern Peru, south to Libertad, east to the upper Marañón Valley.

1: Peru (Menocucho, 1).

**\**Sicalis flaveola flaveola* (Linnaeus). NORTHERN YELLOW FINCH.**

*Fringilla flaveola* Linnaeus, Syst. Nat., 12th ed., 1, p. 321, 1766—patria ignota; = Surinam as designated by Berlepsch and Hartert, Nov. Zool., 9, p. 27, 1902 (type in coll. of Baron de Geer; descr. of adult male).

(?) [*Sycalis*] *aureipectus* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 917, Dec., 1853—"Nova Granata" = "Santa Fé de Bogotá" (type in coll. of J. Verreaux, now in Turin Museum, examined; descr. of young); idem, Not. Orn. Coll. Delattre, p. 17, 1854 (reprint); Sclater, Proc. Zool. Soc. Lond., 23, p. 159, 1855—"Bogotá"; idem, Cat. Coll. Amer. Bds., p. 126, 1862—"Bogotá."

*Sycalis brasiliensis* (not *Emberiza brasiliensis* Gmelin) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 679, 1848 [= 1849]—coast region, espe-

<sup>1</sup> *Sicalis flaveola valida* Bangs and Penard: Similar to *S. f. flaveola*, but decidedly larger, with heavier bill; coloration of males on average slightly more yellowish. Wing (males), 78-83; tail, 57-61; bill, 11-12.

*Additional material examined*.—Peru: Sullana, 3; Tumbez, 4; Huancabamba, 1.—Ecuador: Guayaquil, 2; Yaguachi, 1.



cially Georgetown; Taylor, Ibis, 1864, p. 83—shores of the Orinoco; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 402—part, Caracas, Venezuela; Wyatt, Ibis, 1871, p. 328—Santa Marta, Colombia.

*Sycalis flaveola* Sclater, Ibis, 1872, p. 41—part, Santa Marta, "Bogotá," Venezuela, and British Guiana; Salvin and Godman, Ibis, 1880, p. 123—Santa Marta; Salvin, Ibis, 1885, p. 217—British Guiana (ex Schomburgk); Sharpe, Cat. Bds. Brit. Mus., 12, p. 377, 1888—part, spec. t-x, Venezuela (Valencia) and Colombia (Santa Marta, "Bogotá"); Allen, Bull. Amer. Mus. N. H., 13, p. 165, 1900—Bonda, Cienaga, and Cacagualito, Colombia; Berlepsch and Hartert, Nov. Zool., 9, p. 27, 1902—Altagracia, Ciudad Bolívar, and Caicara, Orinoco, Venezuela (nest and eggs descr.); Berlepsch, l.c., 15, p. 121, 1908—French Guiana; Penard, Vog. Guyana, 2, p. 401, 1910—Surinam; Delacour, Ibis, 1923, p. 148—Venezuela (Guarico and Apure).

*Sicalis flaveola* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 191, 1916—Orinoco region (plumages, nest, and eggs); Chapman, Bull. Amer. Mus. N. H., 36, p. 565, 1917—Turbaco, La Playa, Calamar, and Boca de Chimi, Colombia; Chubb, Bds. Brit. Guiana, 2, p. 454, 1921—Georgetown.

*Sicalis flaveola flaveola* Todd and Carriker, Ann. Carnegie Mus., 14, p. 521, 1922—Tucurínca, Bonda, Cienaga, Rio Hacha, Gaira, Mamatoco, and Fundación, Colombia (plumages, habits); Darlington, Bull. Mus. Comp. Zool., 71, p. 430, 1931—Cienaga, etc., Magdalena, Colombia.

*Range*.—Tropical zone of French, Dutch, and British Guiana, Venezuela (Orinoco basin north to the Caracas region, Lake of Valencia, etc.), and northern Colombia (Santa Marta region and lower Magdalena west to Cartagena).<sup>1</sup>

31: Colombia (Tucurínca, Magdalena, 2); Venezuela (Maracaibo, 5; Rio Aurare, Zulía, 2; Puerto Cabello, 2; Lake Valencia, Aragua, 2; Maracay, Aragua, 8; Cocollar, Sucre, 10).

**\**Sicalis flaveola brasiliensis* (Gmelin).<sup>2</sup> BRAZILIAN YELLOW FINCH.**

<sup>1</sup> Specimens from Surinam and Venezuela agree well together. Two adult males from Baranquilla, while slightly more orange on the throat, are matched by occasional Venezuelan individuals, and it will require an adequate series to establish the claims of a Colombian form for recognition (cf. Miller, Auk, 42, p. 255, 1925). "Bogotá" skins, whose exact origin is of course unknown, may be different again. They have remarkably stout, bulky bills, which are larger even than in *S. f. valida*, and an adult male closely approaches the Pacific race also in other dimensions (wing, 77; tail, 56). The type of *S. aureipectus*, actually in the Turin Museum, is marked "Santa Fé de Bogotá." It is in the process of molting from the juvenile plumage (with buffy white throat, breast, and abdomen, and yellow pectoral band and under tail coverts) into the yellow dress, showing new yellow feathers in forehead, cheeks, chin, and belly. If separable, this form will have to bear Bonaparte's name, but we hesitate to admit it as valid on the present, all too meager evidence.

*Additional material examined*.—Surinam: near Paramaribo, 2.—Venezuela: Quiribana de Caicara, Orinoco, 1; Altagracia, Orinoco, 6; Rio Guayra, near Antimano, Caracas, 2.—Colombia: "Bogotá," 3; Baranquilla, 2.

<sup>2</sup> *Sicalis flaveola brasiliensis* (Gmelin): Similar to *S. f. flaveola*, but upper parts more heavily streaked; flanks slightly striated; orange of forecrown generally

*Emberiza brasiliensis* Gmelin, Syst. Nat., 1, (2), p. 872, 1789—based mainly upon "Guiraneemgatu" Marcgrave, Hist. Nat. Bras., p. 211; northeastern Brazil.<sup>1</sup>

*Sycalis flaveola* (not *Fringilla flaveola* Linnaeus) Forbes, Ibis, 1881, p. 338—from Parahyba and Recife to the interior; Sharpe, Cat. Bds. Brit. Mus., 12, p. 377, 1888—part, spec. p-s, Bahia, "Pará," and Pernambuco; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—Pernambuco (Pão d'Alho, near Recife), Bahia (Fazenda Serra, Rio Grande), and Piauhý (Parnaguá); idem, l.c., p. 178, 1925—same localities; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará.

*Sicalis flaveola flava* (not *Fringilla flava* P. L. S. Müller) Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 298, 1929—Maranhão (Codó, Cocos), Piauhý (Ibiapaba, Arára), and Ceará (Juá, near Iguatú; Quixada; Serra de Baturité) (crit.).

*Range*.—Northeastern Brazil, from southern Maranhão, Piauhý, and Ceará south at least to Bahia (vicinity of Bahia City).

26: Brazil (Codó, Cocos, Maranhão, 4; Ibiapaba, Piauhý, 2; Arára, Piauhý, 1; Serra Baturité, Ceará, 4; Quixada, Ceará, 7; Juá, near Iguatú, Ceará, 6; São Marcello, Rio Preto, Bahia, 1; Santo Amaro, Bahia, 1).

**\**Sicalis flaveola holti* Miller.<sup>2</sup> HOLT'S YELLOW FINCH.**

*Sicalis flaveola holti* Miller, Auk, 42, p. 254, 1925—Monte Serrat, Serra do Itatiaia, São Paulo (type in the American Museum of Natural History,

paler as well as less extensive. In the juvenile plumage the yellow prepectoral band is narrower, paler and frequently streaked with dusky.

*Additional specimens examined*.—Piauhý: Parnaguá, 3.—Pernambuco: Pão d'Alho, Recife, 1.—Bahia: Fazenda da Serra, Rio Grande, 1; unspecified, 10.

<sup>1</sup> Although Daubenton's "Bruant du Brésil," Pl. Enl., pl. 321, fig. 1, is quoted in the synonymy, Gmelin's description appears to be taken from Brisson, whose account is based on Marcgrave. Moreover, nearly all of the other references cited by Gmelin go back to this same source. In another paper I had used the term *flava* for this race. However, on again consulting Daubenton's picture of the "Bruant du Brésil" (Pl. Enl., pl. 321, fig. 1), upon which *Fringilla flava* P. L. S. Müller (Naturesyst., Suppl., p. 164, 1776) is based, I am bound to agree with Sharpe and Miller that this figure showing a bird of indefinite coloring with short reddish legs is hardly identifiable, if referring to a *Sicalis* at all.

<sup>2</sup> *Sicalis flaveola holti* Miller: Exceedingly similar to *S. f. brasiliensis*, but adult male more conspicuously striped above, with the orange of the crown more restricted; female much less greenish above, the upper and middle back with broad brown lateral edges to the feathers and much more heavily streaked with dusky or blackish; no well defined orange patch on the forecrown, only the forehead tinged with dull orange; underneath paler yellow, this color frequently obscured by buffy edges on throat and sides.

It is with some reluctance that we separate the Yellow Finch of southeastern Brazil from *S. f. brasiliensis*, with which we formerly united it. While the males are certainly very much alike and cannot be distinguished in every individual case, three females from Rio de Janeiro (Sapitiba) and São Paulo (Ypanemá) look rather different, as may be gathered from the above description, which concurs perfectly with Miller's characterization of the Itatiaia birds. Certain Bahia trade-skins are, however, decidedly intermediate between a series of females from northeastern Brazil (*brasiliensis*) and those from southern Brazil. They

New York); Holt, Bull. Amer. Mus. N. H., 57, p. 316, 1928—Serra do Itatiaya.

*Emberiza brasiliensis* (not of Gmelin) Wied, Reise Bras., 2, pp. 166, 178, 1821—Barra da Vareda and road to Fazenda Ilha, eastern Minas Geraes.

*Fringilla brasiliensis* Spix, Av. Bras. Spec. Nov., 2, p. 47, pl. 61, figs. 1, 2 (male, female), 1825—Minas Geraes; Wied, Beitr. Naturg. Bras., 3, (1), p. 614, 1830—Brazil (habits).

*Sycalis brasiliensis* Burmeister, Syst. Uebers. Th. Bras., 3, p. 253, 1856—[Minas Geraes], Brazil (habits); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 212—part, Minas Geraes (Lagõa Santa, Sete Lagõas, Curvelo) and Rio de Janeiro (Nova Friburgo); Cabanis, Journ. Orn., 22, p. 84, 1874—Cantagallo, Rio de Janeiro (spec. examined).

*Sycalis flaveola* (not *Fringilla flaveola* Linnaeus) Pelzel, Orn. Bras., 3, p. 231, 1870—Rio de Janeiro (Sapitiba), São Paulo (Ypanemá), and Paraná (Jaguaraíba); Sclater, Ibis, 1872, p. 41—part, São Paulo and Minas Geraes; Sharpe, Cat. Bds. Brit. Mus., 12, p. 377, 1888—part, spec. f-o, Rio de Janeiro, Santa Fé (Minas Geraes), "Pelotas" (Rio Grande do Sul), Ypanemá, São Paulo, Sapitiba, and "Rio Claro, Goyáz"; Ihering, Ibis, 1899, pp. 434, 435 (occurrence in Rio Grande do Sul denied); idem, Rev. Mus. Paul., 3, p. 164, 1899—Piquete and São Sebastião, São Paulo; idem, l.c., 4, p. 154, 1900—Cantagallo, Rio.

*Sicalis flaveola* Ihering, Cat. Faun. Braz., 1, p. 381, 1907—São Paulo (Piquete, Cachoeira, São Sebastião, Caconde, Ypiranga); Linderwaldt, Zool. Jahrb. (Syst.), 27, p. 358, 1909—Serra do Itatiaya; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 488, 500, 1912—Vera Guarany, Paraná; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Retiro do Ramos, Itatiaya; Velho, l.c., p. 263, 1923—Monte Serrat, Itatiaya.

*Range.*—Southeastern Brazil, from Minas Geraes (? and southern Bahia) south to Paraná.<sup>1</sup>

5: Brazil (Therezopolis, Rio de Janeiro, 5).

**\**Sicalis flaveola pelzelni* Sclater.<sup>2</sup> PELZELN'S YELLOW FINCH.**

agree with the latter in strongly streaked crown and dull orange-tinged forehead, but differ by much deeper yellow under parts and green (not brownish) back, resembling in both respects females from Piahy and Ceará. One of these birds—except for its conspicuously striped flanks—corresponds well to Spix's figure of the female (pl. 61, fig. 1) said to be from Minas Geraes, which is no longer in the Munich Museum. Miller, it will be remembered, referred some skins collected by Beck at Bahia City, to *S. f. holti*, a procedure that serves to complicate matters even further. Without large series of properly sexed specimens it is impossible to determine whether the variation discussed in the preceding lines is of individual or geographical significance.

*Additional material examined.*—Espírito Santo: Victoria, 1.—Rio de Janeiro: Cantagallo, 1; Sapitiba, 3; Rio de Janeiro, 1.—São Paulo: Ypanemá, 3; Iguapé, 1; Cachoeira, 1; Ilha de São Sebastião, 1.—Paraná: Jaguaraíba, 1.

<sup>1</sup> The localities "Pelotas, Rio Grande do Sul" and "Rio Claro, Goyáz" are unquestionably erroneous.

<sup>2</sup> *Sicalis flaveola pelzelni* Sclater is so closely approached by certain males of *S. f. holti* that its conspecific relationship to the *S. flaveola* group cannot any longer

*Passerina flava* (not *Fringilla flava* P. L. S. Müller, 1776) Vieillot, Tabl. Enc. Méth., Orn., livr. 93, p. 932, 1823—primarily based on "Chuy" Azara, No. 133; Paraguay.

*Sycalis pelzelni* Sclater, Ibis, (3), 2, p. 42, 1872—Matto Grosso (Cuyabá), Paraguay, and Buenos Aires (type, from Buenos Aires, in coll. of P. L. Sclater, now in British Museum); Durnford, Ibis, 1877, p. 172—Buenos Aires (plumages); Cabanis, Journ. Orn., 26, p. 196, 1878—Córdoba; Gibson, Ibis, 1885, p. 278—Paysandú, Uruguay; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 125, 1885—Taquara, Rio Grande do Sul (crit.); Berlepsch, Journ. Orn., 35, p. 10, 1887—Lambaré, Paraguay; Sharpe, Cat. Bds. Brit. Mus., 12, p. 380, 1888—part,<sup>1</sup> spec. f-u, La Plata, Buenos Aires, Conchitas, Punta Lara, Belgrano, Salta, Catamarca, Córdoba, Cuyabá, and Bolivia; Sclater and Hudson, Arg. Orn., 1, p. 66, 1888—Argentina (habits); Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—Reyes, Bolivia; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Córdoba; Holland, Ibis, 1890, p. 425; 1891, p. 16; 1892, p. 197—Estancia Espartillar, Buenos Aires; Allen, Bull. Amer. Mus. N. H., 3, p. 375, 1891—Cuyabá, Matto Grosso; Aplin, Ibis, 1894, p. 171—Uruguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 7, 1895—Paraguay (Colonia Risso, Bahía Negra, Puerto Francia), Salta (Chilcas), and Matto Grosso (Corumbá); idem, l.c., 12, No. 292, p. 10, 1897—Caiza, Bolivia, and Tala, Salta; idem, l.c., 15, No. 378, p. 6, 1900—Urucúm and Carandásinho, Matto Grosso; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 121, 1899—Mundo Novo, Rio Grande do Sul; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 178, 1902—Tucumán; Oberholser, Proc. U. S. Nat. Mus., 25, p. 143, 1903—Sapucay, Paraguay; Baer, Ornith., 12, p. 217, 1904—Santa Ana, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Rosario, Salta; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—Tucumán; Chubb, Ibis, 1910, p. 636—Ybitimi and Sapucay, Paraguay; Grant, Ibis, 1911, p. 101—Los Yngleses, Buenos Aires; Gibson, Ibis, 1918, p. 388—Cape San Antonio, Buenos Aires.

*Sycalis intermedia* Cabanis, Journ. Orn., 31, p. 216, 1883—Buenos Aires and Córdoba (type, from Buenos Aires, in Berlin Museum examined).

*Emberiza brasiliensis* (not of Gmelin) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 73, 1837—Santa Cruz de la Sierra, Bolivia (spec. examined).

*Criithagra(?) brasiliensis* Darwin, Zool. Beagle, 3, Birds, p. 88, 1839—northern bank of the La Plata.

*Sycalis brasiliensis* Pelzel, Orn. Bras., 3, p. 232, 1870—Cuyabá, Matto Grosso; Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 83, 1884—Tandil, Buenos Aires.

*Sicolis* [sic] *flaveola brasiliensis* Bertoni, Faun. Parag., p. 64, 1914—Alto Paraná, Paraguay.

be challenged, inasmuch as it replaces its allies to the south and west. Besides, the juvenile plumage of *S. f. holti*, by the reduction of the yellowish tinge on the chest as well as by the almost complete absence of greenish tones on the upper parts, marks an undeniable step towards the female coloration of *pelzelni*.

<sup>1</sup> Spec. a-d, from "Pará," Bahia, and Rio de Janeiro have, no doubt, been incorrectly referred to the present form.

*Sycalis chloropsis* (not *Crithagra chloropsis* Bonaparte) Burmeister, Reise La Plata St., 2, p. 489, 1861—part, Catamarca.

*Sycalis chloropsis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, pp. 161, 632—Buenos Aires and Conchitas.

*Sycalis flaveola* (not *Fringilla flaveola* Linnaeus) Berlepsch, Journ. Orn., 21, p. 247, 1873—Blumenau, Santa Catharina (spec. examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 607—Santa Cruz de la Sierra, Bolivia; White, l.c., 1882, p. 600—Monte Grande and Flores, Buenos Aires; Lönnberg, Ibis, 1903, pp. 456, 470—San Luis and Tatarenda, Bolivia.

*Sicalis flaveola* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 388, 1910—Posadas, Misiones; Pereyra, El Hornero, 4, p. 33, 1927—Misiones.

*Sicalis pelzelni* Ihering, Cat. Faun. Braz., 1, p. 381, 1907—part,<sup>1</sup> Rio Grande do Sul (Novo Hamburgo) and Buenos Aires (La Plata); Hartert and Venturi, Nov. Zool., 16, p. 177, 1909—Buenos Aires (Barracas al Sud) and Tucumán (nest and eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 388, 1910 (range in Argentina); idem, l.c., 23, p. 364, 1912—Villa Rica, Paraguay; Bertoni, Faun. Parag., p. 64, 1914—Alto Paraná, Paraguay; Hussey, Auk, 33, p. 397, 1916—La Plata, Buenos Aires; Ménégau, Rev. Franç. d'Orn., 5, p. 86, 1917—Poconé and Caceres, Matto Grosso; Dabbene, El Hornero, 1, p. 245, 1919—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 23, 1920—Uruguay (Montevideo, Canelones, Florida, Maldonado, Minas); Daguerre, l.c., 2, p. 271, 1922—Rosas, Buenos Aires; Serfe and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 69, 1923—La Rioja; Pereyra, l.c., 3, p. 172, 1923—Zelaya, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 659, 1924—Prov. Buenos Aires (Rosas, Isla Martín García); Dinelli, El Hornero, 3, p. 256, 1924—Colalao del Valle, Tucumán (nest and eggs descr.); Wilson, l.c., 3, p. 361, 1926—General López, Santa Fé; Wetmore, Bull. U. S. Nat. Mus., 133, p. 402, 1926—Buenos Aires (Bera-zategui, Lavalle, Bahía Blanca), Chaco (Resistencia), Formosa (Formosa), Tucumán (Tapia), Paraguay (west of Puerto Pinasco), and Uruguay (La Paloma, San Vicente, Lazcano, Rio Negro); Friedmann, Bull. Mus. Comp. Zool., 68, p. 233, 1927—Concepción, Tucumán; Smyth, El Hornero, 4, p. 148, 1928—Cacharí, Buenos Aires (eggs descr.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 352, 1930—Paraguay (Trinidad, Fort Wheeler, Puerto Pinasco) and Matto Grosso (Urucúm, Descalvados, Palmiras); Budin, El Hornero, 4, p. 411, 1931—Maimará, Jujuy; Marelli, l.c., 5, p. 197, 1933—Fortín Chaco and Bahía Blanca, Buenos Aires; Castellanos, l.c., 5, p. 321, 1934—Valle de los Reartes, Córdoba; Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 396, 1934—Descalvados, Matto Grosso.

*Sicalis pelzeni* [sic] Marelli, El Hornero, 1, p. 79, 1918—Curuzú Cuatía, Corrientes.

*Sicalis flaveola pelzelni* Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 248, 1930—Formosa (Lapango, Yuncá Viejo) and Bolivia (Cuevo, Chuquisaca; Ipias and Caraparicito, Santa Cruz).

<sup>1</sup> The specimen from Cachoeira, São Paulo, proves on examination to be referable to *S. f. holti*.

*Sicalis pelzelni danisa* Oberholser, Proc. Colorado Mus. N. H., 10, p. 28, Nov. 13, 1931—Descalvados, Matto Grosso, Brazil (type in Colorado Museum).

*Range*.—Extreme southern and southwestern Brazil, in states of Matto Grosso, Santa Catharina, and Rio Grande do Sul; eastern and southern Bolivia; northern Argentina south to La Rioja, Córdoba, and Buenos Aires (Bahia Blanca); Paraguay and Uruguay.<sup>1</sup>

57: Bolivia (Trinidad, Rio Mamoré, 2; Buena Vista, Santa Cruz, 5; Parotani, Cochabamba, 6); Paraguay (Villa Rica, 1); Brazil (Urucúm de Corumbá, 3; Santa Catharina, Joinville, 5); Argentina (Concepción, Tucumán, 24); Uruguay (El Carrizal, Sierra Polanco, Minas, 3; Rio Cebollati, Passo de Averias, Minas, 4; west of Garzon, Dept. Rocha, 2; Estancia "El Corte," north of San Carlos, Maldonado, 2).

***Sicalis luteola chrysops* Sclater.<sup>2</sup> MEXICAN YELLOW FINCH.**

*Sycalis chrysops* Sclater, Proc. Zool. Soc. Lond., 1861, p. 376—southern Mexico (type in coll. of P. L. Sclater, now in British Museum); idem, Ann. Mag. Nat. Hist., (3), 9, p. 340, 1862 (reprint); Salvin, Ibis, 1866, p. 194—Dueñas, Guatemala; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—near Orizaba, Vera Cruz; Sclater, Ibis, 1872, p. 45, pl. 2, fig. 1—Mexico and Guatemala (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 432, 1886—Mexico (Orizaba) and Guatemala (Dueñas).

[*Sycalis arvensis*] subsp.  $\gamma$  *Sycalis chrysops* Sharpe, Cat. Bds. Brit. Mus., 12, p. 384, 1888—Mexico and Guatemala (Dueñas).

*Sicalis chrysops* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 523, 1901—Mexico (Orizaba, Vera Cruz; Palenque, Chiapas) and Guatemala (Dueñas); Griscom, Bull. Amer. Mus. N. H., 64, p. 357, 1932—Dueñas, Guatemala.

*Range*.—Temperate zone of southeastern Mexico, in states of Vera Cruz (Orizaba) and Chiapas (Palenque), and Guatemala (Dueñas).

**\**Sicalis luteola luteola* (Sparrman).<sup>3</sup> LESSER YELLOW FINCH.**

*Emberiza luteola* Sparrman, Mus. Carls., fasc. 4, pl. 93, 1789—habitat not stated, probably Surinam (type now in Stockholm Museum; cf. Sundevall,

<sup>1</sup> With good series from various parts of the range we have not been able to make out any local variation. Adult males from Buenos Aires vary in the length of the wing from 66 to 71, others from Matto Grosso (*danisa*) from 66 to 68<sup>1</sup>/<sub>2</sub> mm.

*Additional material examined*.—Brazil: Cuyabá, Matto Grosso, 7; Cambará, near Descalvados, Matto Grosso, 1; Blumenau, Santa Catharina, 2; São Lourenço, Rio Grande do Sul, 1; Taquara, 5; Rio Grande do Sul (unspecified), 5.—Bolivia: Mojos, 3; Guarayos, 1; Ayupaya, 2; Valle Grande, 2; Chuquisaca, 1.—Paraguay: Bernalcué, 3.—Argentina: Corrientes, 2; Buenos Aires, 10.

<sup>2</sup> *Sicalis luteola chrysops* Sclater, in spite of its widely separated habitat, is exceedingly close to *S. l. luteola*, the racial characters being nearly bridged by individual variation.

<sup>3</sup> *Sicalis luteola luteola* (Sparrman) is recognizable from the other Brazilian races by its small, slender bill. The adult male has the cheeks, auriculars, and

Vetensk.-Akad. Handl., 2, No. 3, p. 14, 1857, and Gyldenstolpe, Ark. Zool., 19, A, No. 1, p. 20, 1926).

*Sycalis minor* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 679, 1849—British Guiana (type in Berlin Museum examined); Pelzeln, Orn. Bras., 3, p. 232, 1870—Forte do São Joaquim, Rio Branco, Brazil (spec. examined); Salvin, Ibis, 1885, p. 217—British Guiana (ex Cabanis).

[*Sycalis arvensis*] subsp.  $\beta$  *Sycalis minor* Sharpe, Cat. Bds. Brit. Mus., 12, p. 384, 1888—part, spec. c, Caracas, Venezuela.

*Serinopsis arvensis minor* Berlepsch and Hartert, Nov. Zool., 9, p. 28, 1902—Altagracia, Rio Orinoco, Venezuela (spec. examined); Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 209, 1913—Caño Corozal, Orinoco Delta.

*Sicalis arvensis minor* Hellmayr, Nov. Zool., 15, p. 35, 1908—British Guiana (Annai, Rio Rupununi), northern Brazil (Forte do Rio Branco), and Orinoco Valley, Venezuela (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 195, 1916—San Mateo de Caicara, Orinoco, Venezuela (song, nest, and eggs); Chapman, Bull. Amer. Mus. N. H., 36, p. 566, 1917—part, Cali (Cauca) and Chicoral (Magdalena), Colombia.

*Sycalis arvensis* (not *Fringilla arvensis* Kittlitz) Penard, Voy. Guyana, 2, p. 401, 1910—Surinam.

*Sicalis minor* Chubb, Bds. Brit. Guiana, 2, p. 455, 1921—Abary River, Mount Roraima, Rupununi River, and Georgetown.

*Sicalis luteiventris minor* Chapman, Amer. Mus. Novit., 143, p. 15, 1924—Venezuela (Caicara and Rio San Feliz) and Colombia (Cali; Chicoral).

**Range.**—Tropical zone of extreme northern Brazil (upper Rio Branco); French, Dutch, and British Guiana; Venezuela (Orinoco Valley, north to the Caracas region); Colombia (Chicoral, Magdalena Valley; Cali, Rio Cauca).

1: Brazil (Bõa Vista, Rio Branco, Amazonas, 1).

### ***Sicalis luteola laetissima* Todd.<sup>1</sup> LARGE-BILLED YELLOW FINCH.**

*Sicalis luteiventris laetissima* Todd, Proc. Biol. Soc. Wash., 35, p. 90, July 12, 1922—Rocana, [northern] Pará, Brazil (type in Carnegie Museum); Chapman, Amer. Mus. Novit., 143, p. 15, 1924—Marajó (crit.).

the sides of breast and abdomen strongly shaded with olivaceous, and the remaining under parts very bright yellow with very little, if any, white at the tips of the tail coverts, while above the rump only is decidedly yellowish olive. In the females the throat is mainly buffy whitish.

Birds from the upper Rio Branco and the Orinoco Valley are identical with others from Guiana, and one from "Caracas" does not differ either. Specimens from the Tropical zone of Colombia are not available for comparison. Wing (males), 63–66; tail, 44–48; bill, 8–9.

As recorded in another connection (Field Mus. Nat. Hist., Zool. Ser., 19, pp. 87–88, note 4, 1932), *Emberiza luteola* proves to be an earlier name for *S. minor*. Gyldenstolpe, on independent study of Sparrman's type specimen, has reached the same conclusion.

**Additional material examined.**—Brazil: Forte do São Joaquim, Rio Branco, 4.—French Guiana: Cayenne, 1.—British Guiana: Annai, 1; Rio Rupununi, 2; unspecified, 1.—Venezuela: Altagracia, Orinoco, 5; Quiribana de Caicara, Orinoco, 2; "Caracas," 1.

<sup>1</sup> *Sicalis luteola laetissima* Todd: Similar to *S. l. luteola*, but with slightly longer wings, much larger, more curved bill, and with rump in adult male more

*Sycalis hiliarii* (not of Cabanis) Sclater, Cat. Coll. Amer. Bds., p. 126, 1862—Mexiana; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 573—Mexiana.

*Sycalis luteola* (not *Emberiza luteola* Sparrman) Sclater, Ibis, 1872, p. 44—part, Mexiana.

[*Sycalis arvensis*] subsp.  $\beta$  *Sycalis minor* (not of Cabanis) Sharpe, Cat. Bds. Brit. Mus., 12, p. 384, 1888—part, spec. a, b, Mexiana (spec. examined).

*Sycalis minor* Hagmann, Zool. Jahrb. (Syst.), 26, p. 29, 1907—Mexiana.

*Sycalis arvensis minor* Snethlage, Journ. Orn., 55, p. 297, 1907—part, Marajó.<sup>1</sup>

*Sicalis arvensis chapmani* (not of Ridgway) Hellmayr, Nov. Zool., 15, p. 34, 1908—part, Marajó and Mexiana (crit.); idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 119, 127, 1912—Mexiana and Marajó (Cachoeira).

*Serinopsis arvensis chapmani* Snethlage, Bol. Mus. Goeldi, 8, p. 432, 1914—Marajó (Pacoval, São Natal, Magoary), Mexiana, and Monte Alegre.

*Range*.—Northeastern Brazil, from the north bank of the Amazon (Monte Alegre) and the islands of Marajó and Mexiana north to the confines of French Guiana (Rocana).

### ***Sicalis luteola chapmani* Ridgway.<sup>2</sup> CHAPMAN'S YELLOW FINCH.**

*Sicalis chapmani* Ridgway, Auk, 16, p. 37, 1899—Diamantina [near Santarém], Rio Tapajóz, Brazil (type in U. S. National Museum); Ithering, Cat. Faun. Braz., 1, p. 381, 1907 (ex Ridgway).

*Sycalis minor* (not of Cabanis) Chapman and Riker, Auk, 7, p. 268, 1890—Santarém (crit.).

*Range*.—Northern Brazil, south of the Amazon, on the banks of the Rio Tapajóz.

### **\**Sicalis luteola luteiventris* (Meyen). MISTO YELLOW FINCH.**

*Fringilla luteiventris* Meyen, Nov. Act. Acad. Leop.-Carol., 16, Suppl., p. 87, pl. 12, fig. 3, 1834—near Api, Altos de Toledo, southern Peru (type in

yellowish, practically unstreaked. The female, which we have not seen, is stated by Todd to have the throat yellowish instead of buffy white. Wing (males), 65–69; tail, 44–48; bill, 10–11.

*Material examined*.—Brazil: Mexiana, 2; Pacoval, Marajó, 1; Cachoeira, Marajó, 1.

<sup>1</sup> The Maracá specimen proves to pertain to *S. columbiana goeldii*.

<sup>2</sup> *Sicalis luteola chapmani* Ridgway: Similar to *S. l. laetissima* in large, strongly convex bill as well as in proportions of wing and tail, but upper parts much more yellowish green with narrower dusky streaking, and lower surface brighter, deep lemon yellow without any olive shading on chest or sides. Female unknown to the author. Wing, 69; tail, 50; bill, 11.

A single adult male from Santarém bears out the characters indicated by Ridgway and Todd, and seems to be separable from *S. l. laetissima* by its much brighter coloration.

An undescribed race inhabits the banks of the São Francisco River, in the State of Bahia, Brazil. It was recorded by Reiser (Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 81, 1910—part, No. 295. Adult male, near Joazeiro) as *Sycalis arvensis minor*. We refrain, however, from naming it, since the only available specimen could not be properly characterized, owing to its worn condition.



- Berlin Museum examined); Kittlitz, Denkw. Reise, 1, p. 172, 1858—Valley of Quillota, Chile.
- Fringilla arvensis* Kittlitz, Mém. Acad. Sci. St. Pétersb., sav. étr., 2, p. 470, pl. 4, August, 1835—Valley of Quillota, Valparaíso, Chile (type in Leningrad Museum; cf. Chrostowski, Ann. Zool. Mus. Pol. Hist. Nat., 1, p. 19, 1921).
- Crithagra(?) brevirostris* Gould, in Darwin, Zool. Beagle, 3, Birds, p. 88, Nov., 1839—Maldonado, Uruguay, and Valparaíso, Chile (type lost, formerly in coll. of Zoological Society of London); Fraser, Proc. Zool. Soc. Lond., 11, p. 112, 1843—Chile; Yarrell, l.c., 15, p. 53, 1847—Chile (egg descr.).
- Grithagra brevirostris* Des Murs, in Gay, Hist. Fís. Pol. Chile, 1, p. 361, 1847—Valparaíso (ex Darwin); Germain, Proc. Bost. Soc. N. H., 7, p. 312, 1860—Santiago, Chile (nesting habits); Philippi, Reise Wüste Atacama, p. 163, 1860—Quebrada de la Encantada, Atacama; idem, Anal. Univ. Chile, 31, p. 266, 1868—Chile; Landbeck, Zool. Garten, 18, p. 258, 1877—Chile (habits); Lataste, Act. Soc. Sci. Chili, 3, p. cxv, 1893—Ninhue, Maule; idem and Waugh, l.c., 4, pp. lxxxvii, clxxii, 1894—Peñaflor, Santiago, and San Alfonso, Quillota, Chile; Lataste, l.c., 5, p. xxxiv, 1895—Caillihue, Curicó, Chile.
- Crithagra luteiventris* Bonaparte, Consp. Gen. Av., 1, (2), p. 521, 1850—"Chile" (ex Meyen).
- Crithagra hiliarii* Bonaparte, Consp. Gen. Av., 1, (2), p. 521, 1850—Brazil (nomen nudum);<sup>1</sup> Hellmayr, Nov. Zool., 13, p. 309, 1906 (crit.).
- Sycalis hiliarii* Cabanis, Mus. Hein., 1, p. 147, Oct., 1851—Brazil (type in Heine Collection, now in Municipal Museum, Halberstadt); Burmeister, Syst. Uebers. Th. Bras., 3, p. 254, 1856—Minas Geraes (excl. of syn. *S. minor*); Pelzeln, Orn. Bras., 3, p. 232, 1870—Goyáz (Fazenda do José Dias, Abrantes) and Matto Grosso (Fazenda do Santo Antonio); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 403—Lagõa Santa, Minas Geraes.
- Crithagra luteiventris* Cassin, in Gilliss, U. S. Astr. Exp., 2, p. 181, 1855—Andes [of Chile]; Pelzeln, Reise Novara, 1, Vögel, p. 95, 1865—Chile.
- Sycalis luteoventris* Bibra, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 5, p. 130, 1853—Cordillera of Santiago, Chile.
- Sycalis luteiventris* Burmeister, Journ. Orn., 8, p. 257, 1860—near Paraná and Tucumán; idem, Reise La Plata St., 2, p. 489, 1861—Argentina (descr., eggs); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 599—Tinta, Dept. Cuzco, Peru; Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; Durnford, Ibis, 1877, p. 33—Ninfas Point, Chubut (eggs descr.); Reichenow, Journ. Orn., 65, p. 513 (crit. on type).

<sup>1</sup> The entry reads: "*C. hiliarii* Bonap. Mus. Paris ex Brasil. Similis *C. luteiventri*." The name thus is an absolute nomen nudum, and the supposed type in Paris discussed by Hellmayr has no value as such. *S. hiliarii* was not characterized until a year later, when Cabanis, in making use of Bonaparte's term, refers to the somewhat smaller bill of the Brazilian bird.

*Sycalis arvensis* Sclater, Proc. Zool. Soc. Lond., 1867, pp. 323, 338—Chile; Sclater and Salvin, l.c., 1868, p. 140—Conchitas, Buenos Aires; Reed, Anal. Univ. Chile, 49, p. 545, 1877—Cauquenes, Colchagua, Chile; Doering, in Roca, Inf. Ofic. Exp. Rio Negro, p. 40, 1881—near Carhué, Rio Sauce, and Rio Colorado; White, Proc. Zool. Soc. Lond., 1883, p. 433—La Plata, Buenos Aires; Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 83, 1884—Campos de Tandil, Buenos Aires; Dalgleish, Proc. Roy. Phys. Soc. Edin., 8, p. 84, 1884—Estancia de la Tala, Prov. Durazno, Uruguay (nest and eggs descr.); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 125, 1885—Taquara, Rio Grande do Sul; Taczanowski, Orn. Pér., 3, p. 61, 1886—part, "Arequipa" = Tinta, Peru; Sharpe, Cat. Bds. Brit. Mus., 12, p. 382, 1888—Argentina (Buenos Aires, Conchitas), Uruguay, Matto Grosso, Bolivia (Tilotilo), and Chile (Santiago, Coquimbo, Talcahuano); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Córdoba; Allen, Bull. Amer. Mus. N. H., 3, p. 375, 1891—Chapada, Matto Grosso; Reed, Anal. Univ. Chile, 93, p. 200, 1896—Chile; Lane, Ibis, 1897, p. 24—Chile (Hacienda Mansel, Rio Bueno, Puerto Montt, and Laguna Llanquihue; habits); Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 10, 1897—Tala, Salta; Schallow, Zool. Jahrb., Suppl., 4, p. 722, 1898—Tumbes, Chile; Ihering, Rev. Mus. Paul., 3, p. 165, 1899—Ypiranga, São Paulo; idem, Anuario Est. Rio Grande do Sul, 16, p. 121, 1899—Pedras Brancas, Rio Grande do Sul; Albert, Anal. Univ. Chile, 108, p. 203, 1901—Chile (monog.); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 178, 1902—Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Orán, Salta; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—Tucumán; Paessler, Zeits. Ool. Orn., 16, p. 29, 1906—Coronel, Chile (nest and eggs); Grant, Ibis, 1911, p. 102—Luiconia and Los Yngleses, Ajó, Buenos Aires; Chapman, Bull. U. S. Nat. Mus., 117, p. 110, 1921—Huaracundo Canyon, Urubamba, Peru; Gigoux, Rev. Chil. Hist. Nat., 28, p. 84, 1924—Caldera, Atacama; Housse, l.c., 29, pp. 147, 226, 1925—San Bernardo and Isla La Mocha, Chile; Jaffuel and Piri6n, l.c., 31, p. 110, 1927—Marga-Marga, Valparaiso; Bullock, l.c., 35, p. 189, 1929—Angol, Malleco.

*Sycalis luteola* (not *Emberiza luteola* Sparrman) Sclater, Ibis, 1872, p. 44—part, Peru ("Arequipa" = Tinta), Chile (Santiago), Buenos Aires, and Matto Grosso; Durnford, Ibis, 1877, p. 172—Prov. Buenos Aires; idem, Ibis, 1878, p. 394—Chubut Valley, Patagonia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 607—Tilotilo, Bolivia; Salvin, l.c., 1883, p. 422—Coquimbo and Talcahuano, Chile; Barrows, Bull. Nutt. Orn. Cl., 8, p. 132, 1883—Concepción del Uruguay, Entre R6os (nest and eggs); Gibson, Ibis, 1885, p. 278—Paysandú, Uruguay; Sclater and Hudson, Arg. Orn., 1, p. 69, 1888—Argentina (habits); Holland, Ibis, 1890, p. 16; 1892, p. 198—Estancia Espartillar, Buenos Aires; Aplin, Ibis, 1894, p. 171—Uruguay; Gibson, Ibis, 1918, p. 389—Cape San Antonio, Buenos Aires (nesting habits).

*Sicalis arvensis* Ihering, Cat. Faun. Braz., 1, p. 382, 1907—São Paulo (Ypiranga) and Buenos Aires; Bertoni, Faun. Parag., p. 64, 1914—Alto Paraná, Paraguay; Sanzin, El Hornero, 1, p. 152, 1918—Mendoza; Tremoleras, l.c., 2, p. 23, 1920—Uruguay (Montevideo, Calelones, Maldonado, San

José, Colonia, Flores); Renard, l.c., 2, pp. 58, 60, 1920—Cañuelas, Buenos Aires; Daguerre, l.c., 2, p. 271, 1922—Rosas, Buenos Aires; Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 172, 1923—Zelaya, Buenos Aires; Wilson, l.c., 3, p. 361, 1926—General López, Santa Fé; Smyth, l.c., 4, p. 148, 1928—Cacharí (F.C.S.) and Santa Elena (eggs); Castellanos, l.c., 5, p. 321, 1934—Valle de los Reartes, Córdoba.

*Sicalis arvensis arvensis* Hellmayr, Nov. Zool., 15, p. 34, 1908—Rio Thesouras, Goyáz (crit., range); Hartert and Venturi, l.c., 16, p. 177, 1909—Barracas al Sud (Buenos Aires) and Tucumán (eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 388, 1910 (range in Argentina); idem, 23, p. 363, 1912—Paso Yuvay and Itapémíni, Paraguay; Hussey, Auk, 33, p. 397, 1916—La Plata, Buenos Aires; Dabbene, El Hornero, 1, p. 244, 1919—Isla Martín García, Buenos Aires; Barros, Rev. Chil. Hist. Nat., 24, p. 148, 1920—Nilahue, Curicó, Chile; idem, l.c., 25, p. 188, 1921—Precordillera of Aconcagua, Chile; Peters, Bull. Mus. Comp. Zool., 65, p. 331, 1923—Huanuluan and Bariloche, Rio Negro; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 659, 1924—Prov. Buenos Aires; Wetmore, Bull. U. S. Nat. Mus., 133, p. 402, 1926—Argentina (Lavalle and Carhué, Buenos Aires; General Roca, Rio Negro; Tunuyán, Mendoza) and Uruguay (Carrasco, La Paloma, San Vicente, Lazcano); idem, Univ. Calif. Pub. Zool., 24, p. 458, 1926—Bariloche, Rio Negro; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 189, 1926—Pinheirinhos, Paraná; Stone, Rep. Princet. Exp. Patag., 2, p. 832, 1928 (range in Patagonia); Barros, Rev. Chil. Hist. Nat., 33, p. 362, 1929—Aconcagua, Chile; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 247, 1930—Santa Fé (La Germania), Formosa (San José), and Bolivia (Villa Montes, Tarija); Marelli, El Hornero, 5, p. 197, 1933—Sierra de la Ventana, Buenos Aires.

*Sicalis arvensis luteiventris* Berlepsch and Stolzmann, Ornith., 13, p. 127, 1906—Puno, Peru; Clark, Proc. Bost. Soc. N. H., 32, p. 287, 1905—Barbados (introduced); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 544, 1928—Barbados (introduced).

*Sycalis luteiventris luteiventris* Paessler, Journ. Orn., 70, p. 476, 1922—Coronel, Chile (nesting habits).

*Sicalis luteiventris luteiventris* Chapman, Amer. Mus. Novit., 143, p. 15, 1924—Tirapata, Peru; Naumburg, Bull. Amer. Mus. N. H., 60, p. 353, 1930—Matto Grosso.

*Sicalis paranensis* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 188, 1926—Marechal Mallet, Paraná, Brazil (type in Warsaw Museum).

*Sicalis luteola luteiventris* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 87, 1932—Chile (crit.).

*Range.*—Southern Brazil, from Minas Geraes (Lagõa Santa), Goyáz, and Matto Grosso south to Rio Grande do Sul; Uruguay; Paraguay; eastern Bolivia; southern Peru, in depts. of Cuzco, Puno, and Moquegua; Chile, from Atacama south to Chiloé and the

Guaitecas Islands; northern Argentina, west to Mendoza and Rio Negro, south to the Chubut Valley. Introduced in Barbados.<sup>1</sup>

32: Chile (Ramadilla, Atacama, 1; Caldera, Atacama, 1; Los Andes, Aconcagua, 1; Hacienda Gualpencillo, Concepción, 2; Curacautin, Malleco, 2; Mafil, Valdivia, 4; Quellon, Chiloé Island, 7; Guaiteca Island, Guaitecas, 1); Bolivia (Parotani, Cochabamba, 2); Uruguay (Treinta y Tres, 1; La Lata, Colonia, 1; north of San Vicente de Castillos, Rocha, 1); Argentina (Concepción, Tucumán, 4); Brazil (Chapada, Matto Grosso, 4).

**\**Sicalis luteola raimondii* Taczanowski.<sup>2</sup> RAIMONDI'S YELLOW FINCH.**

*Sycalis raimondii* (Jelski MS.) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 133—vicinity of Lima, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 172, 1927); Reichenow, Journ. Orn., 65, p. 514, 1917—Lima (crit.).

*Sycalis raimondi* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 522—Lima.

*Sycalis luteiventris* (not *Fringilla luteiventris* Meyen) Selater, Proc. Zool. Soc. Lond., 1867, p. 342—near Lima; Taczanowski, l.c., 1874, p. 522—vicinity of Lima (eggs descr.); idem, l.c., 1879, p. 230—Arenal, near Tambillo; idem, Orn. Pér., 3, p. 59, 1886—Lima and Tambillo; Salvin, Nov. Zool., 2, p. 7, 1895—Huamachuco, Cajabamba, and Cajamarca.

<sup>1</sup> Further subdivision of this form is impracticable in the light of a very satisfactory series of upwards of one hundred specimens. Birds from southern Peru, including the type, are absolutely indistinguishable from the Chilean ones (*arvensis*). Neither are the under parts brighter or deeper yellow, nor is there any difference in the coloring or streaking of the upper surface. Brazilian skins, as a rule, have very slightly smaller bills, but certain individuals are unusually large-billed like *S. l. chapmani*, the type of *S. paranensis* being no doubt an example of this variation. Birds from Argentina and Uruguay average a trifle more brownish above, but the divergency is so completely bridged by individual variation that no practical purpose would be gained by recognizing a race *brevirostris*.

*Additional material examined.*—Peru: Altos de Toledo, Puno, 1; Puno City, 5; Urubamba, Cuzco, 3.—Bolivia: Villa Montes, Tarija, 3.—Chile: 15.—Argentina: Estancia La Germania, Santa Fé, 3; Buenos Aires, 5.—Brazil: Rio Grande, 1; Taquara, Rio Grande do Sul, 2; Pedras Brancas, Rio Grande do Sul, 1; Ypiranga, São Paulo, 1; Abrantes, Goyáz, 3; José Dias, Goyáz, 1; Fazenda do Santo Antonio, Matto Grosso, 1; Chapada, Matto Grosso, 2.

<sup>2</sup> *Sicalis luteola raimondii* Taczanowski: Similar to *S. l. luteiventris* in large bill, but wings and tail shorter. Wing, (male) 67–74, (female) 67–69; tail, 46–52, rarely 54, (female) 47–50; bill, 9–10.

Specimens from northern Peru do not appreciably differ from a topotypical series collected in the Lima region, though they generally have the under parts slightly more deeply colored. Birds from Huánuco (Chinchao) are like the former. The coloring of the upper surface is as much subject to seasonal variation as in the other races. The whitish spot on the inner web of the outermost rectrix is likewise variable. It is absent in numerous individuals of *raimondii*, more or less pronounced in others, while among more than seventy specimens of *luteiventris* there is only one (from Peru) with a slight suggestion of this marking.

*Additional specimens examined.*—Peru: Lima, 9; Vitarte, Lima, 2; Cajamarca, 3; Chusgon (alt. 9,000 ft.), Huamachuco, 1; Cajabamba, 1; Santiago, Libertad, 10.

*Sycalis luteola* (not *Emberiza luteola* Sparrman) Scater, Ibis, 1872, p. 44—part, Lima.

[*Sycalis arvensis*] subsp. *a* *Sycalis luteiventris* Sharpe, Cat. Bds. Brit. Mus., 12, p. 383, 1888—part, spec. a, Lima.

*Sycalis arvensis luteiventris* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 377—Lima (crit., eggs descr.).

*Sycalis arvensis* (not *Fringilla arvensis* Kittlitz) Taczanowski, Orn. Pér., 3, p. 61, 1886 part, Lima.

*Sicalis luteiventris raimondii* Chapman, Amer. Mus. Novit., 143, p. 15, 1924—Lima and Vitarte, Lima.

*Sicalis luteola raimondii* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 468, 1930—Chinchao, Huánuco, Peru (crit.).

*Range*.—Tropical and Subtropical zones of western Peru, from Lima northwards to Cajamarca.

8: Peru (Chinchao, 7; Cajamarca, 1).

**\**Sicalis luteola bogotensis* Chapman.<sup>1</sup> BOGOTÁ YELLOW FINCH.**

*Sicalis luteiventris bogotensis* Chapman, Amer. Mus. Novit., 143, p. 14, Nov., 1924—savanna of Bogotá, Colombia (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 624, 1926—Valle Cumbaya, Pichincha, Cerro Huamano, Cochaseca, Cajabamba, and Riobamba, Ecuador.

*Sycalis* sp. Scater, Proc. Zool. Soc. Lond., 26, p. 455, 1858—Cuenca, Ecuador.

*Sycalis arvensis* (not *Fringilla arvensis* Kittlitz) Scater, Cat. Coll. Amer. Bds., p. 126, 1862—part, spec. c, Cuenca.

*Sycalis luteola* (not *Emberiza luteola* Sparrman) Scater, Ibis, 1872, p. 44—part, Bogotá and Cuenca; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 294—Cechce, Ecuador; idem, l.c., 1885, p. 85—between Riobamba and Chimborazo, Ecuador.

[*Sycalis arvensis*] subsp. *a* *Sycalis luteiventris* (not *Fringilla luteiventris* Meyen) Sharpe, Cat. Bds. Brit. Mus., 12, p. 383, 1888—part, spec. c-k, Ecuador (Sical, Cuenca) and Colombia (Bogotá).

*Sycalis arvensis luteiventris* Hartert, Nov. Zool., 5, p. 484, 1898—Ibarra and Cayambé, Ecuador; Goodfellow, Ibis, 1901, p. 475—near Quito and

<sup>1</sup> *Sicalis luteola bogotensis* Chapman: Excessively close to *S. l. raimondii*, but bill on average smaller, and white spot on inner web of outermost rectrix more frequently present. Wing (males), 70–72; tail, 50–52; bill, 9–9½.

I am extremely doubtful if this form can be maintained, since all of the supposed color-characters turn out to be non-existent in the light of the large series of *raimondii*. The only point of distinction I can find is the slightly smaller bill, though one male from the Bogotá region is just as large-billed as any from Lima. The other dimensions fall within the measurements of the Peruvian form. The white spot on the inner web of the outermost rectrix is more or less pronounced in eight (out of eleven) specimens, but in the series of *raimondii* there are twelve from various localities which have this marking just as well, if not more, developed. A single adult male from Conejos (alt. 3,000 metr.), Mérida, Venezuela, while intermediate in size and coloration to *S. l. luteola*, seems nearer to the present form.

*Material examined*.—Colombia: Bogotá, 3; Fontiba, Cundinamarca, 1.—Ecuador: Tumbaco, 3; Cañar, 1; Sinche, Guaranda, 1; unspecified, 1.—Venezuela: Conejos, Mérida, 1.

Chillo Valley, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B78, 1911—Tumbaco, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 79, 1922—Ichimbía, above Quito, Ecuador.

*Sycalis luteiventris* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 28, 1899—Tumbaco, Ecuador.

*Sicalis arvensis minor* (not *Sycalis minor* Cabanis) Chapman, Bull. Amer. Mus. N. H., 36, p. 566, 1917—part, Bogotá, Subia, Puente Andalucia, El Carmen, and La Mar, Colombia.

*Range*.—Temperate zone of Ecuador, the eastern Andes of Colombia, and possibly western Venezuela (Cordillera of Mérida).

2: Colombia (Bogotá, 2).

### Subfamily EMBERIZINAE. Sparrows and Buntings

#### Genus *DIUCA* Reichenbach

*Diuca* Reichenbach, Av. Syst. Nat., pl. 78, June 1, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 79, 1855), *Emberiza speculifera* Lafresnaye and d'Orbigny.

*Hedyglossa* Cabanis, Mus. Hein., 1, p. 135, October, 1851—new name for *Diuca* Reichenbach.

#### *Diuca speculifera* (Lafresnaye and d'Orbigny). WHITE-WINGED DIUCA FINCH.

*Emberiza speculifera* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 78, 1837—"in summis Andibus, Bolivia" (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 362, pl. 46, fig. 1, 1844—crest of the eastern Cordillera separating La Paz from Yungas Province, Bolivia.

*Diuca speculifera* Bonaparte, Consp. Gen. Av., 1, (2), p. 476, 1850—Bolivia; Sclater, Cat. Coll. Amer. Bds., p. 111, 1862—Bolivia; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 41—Junín, Peru; Sclater, l.c., 1881, p. 486—Cordillera above Lima (alt. 5,645 feet), Peru; Taczanowski, Orn. Pér., 3, p. 41, 1886—Peru (Junín; between Huancayo and the Cordillera of Huaritanga); Sharpe, Cat. Bds. Brit. Mus., 12, p. 802, 1888—Bolivia and Peru (Andes of Lima; Salinas); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 351—Baños, Dept. Junín, Peru; Albert, Anal. Univ. Chile, 108, p. 233, 1901—Cordillera of Tarapacá, Chile; Chapman, Bull. U. S. Nat. Mus., 117, pp. 39, 113, 1921—La Raya, head of Urubamba Valley, Peru; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 75, 1932—Tarapacá and Tacna, Chile.

*Phrygilus speculifer* Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 985—Salinas, above Arequipa (alt. 14,000 ft.), Peru; idem, l.c., 1868, p. 569—[Salinas], Peru.

*Range*.—Puna zone of southern Peru (north to Junín), Bolivia, and apparently northern Chile (provinces of Tarapacá and Tacna).<sup>1</sup>

<sup>1</sup> The occurrence of this bird at so low an elevation as that recorded by Nation (Sclater, 1881, p. 486) is certainly an exception. A single female (in worn plumage)

**\**Diuca diuca crassirostris* Hellmayr.<sup>1</sup> LARGE-BILLED DUICA FINCH.**

*Diuca diuca crassirostris* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 74, 1932—Ramadilla, Copiapó Valley, Atacama, Chile (type in Field Museum).

*Fringilla diuca* (not of Molina) Darwin, Zool. Beagle, 3, Birds, p. 93, 1839—part, desert mountains of Copiapó; Philippi, Reise Wüste Atacama, p. 163, 1860—north as far as Miguel Diaz, Antofagasta; idem, Anal. Univ. Chile, 31, p. 265, 1868—part, northern Chile; idem, Ornith., 4, p. 159, 1888—Atacama.

*Diuca grisea* (not of Lesson) Sharpe, Proc. Zool. Soc. Lond., 1881, p. 7—Coquimbo; Salvin, l.c., 1883, p. 421—part, Coquimbo; Gigoux, Rev. Chil. Hist. Nat., 28, p. 86, 1924—Caldera, Atacama.

*Diuca diuca* Sharpe, Cat. Bds. Brit. Mus., 12, p. 800, 1888—part, spec. i-l, Coquimbo.

*Range*.—Temperate zone of northern Chile, from southern Antofagasta (Miguel Diaz) to Coquimbo.

7: Chile (Caldera, Atacama, 2; Domeyko, Atacama, 3; Ramadilla, Atacama, 1; Romero, Coquimbo, 1).

**\**Diuca diuca diuca* (Molina). CHILEAN DUICA FINCH.**

*Fringilla diuca* Molina, Saggio Stor. Nat. Chile, p. 249, 1782—Chile; Kittlitz, Mém. Acad. Sci. St. Pétersb., sav. étr., 1, p. 192, pl. 11, 1830—Chile (full descr., habits); Eyndoux and Gervais, Mag. Zool., 6, cl. 2, p. 18, pl. 69, 1836—Valparaíso; idem, Voy. Favorite, 5, (2), Ois., p. 44, pl. 17, 1839—Valparaíso; Darwin, Zool. Beagle, 3, Birds, p. 93, 1839—part, humid

from Baños, Junín, Peru, agrees fairly well with others from Bolivia in similar condition, but the white of the lateral rectrices encroaches a little onto the tip of the inner web, a feature not noticed in any other example.

Since this was written, *Diuca speculifera magnirostris* Carriker (Proc. Acad. Nat. Sci. Phila., 87, p. 359, Oct., 1935) was described from Yanac, Dept. Ancachs, Peru, its character being a longer, basally deeper bill. There is much variation, however, in the size of this organ among my Bolivian specimens. Six adults from Lima and Junín recently examined in the British Museum do not differ at all from a Bolivian series.

*Material examined*.—Peru: Andes above Lima, 3; Galera, Junín, 3; Baños, Junín, 1; Salinas, Arequipa, 4.—Bolivia: Iquico (Illimani), La Paz, 10; Cordillera between Illimani and Huaina Potosí, 4; unspecified, 3.

<sup>1</sup> *Diuca diuca crassirostris* Hellmayr: Similar to *D. diuca diuca*, but bill much heavier, both longer and considerably deeper, and outer web of outermost rectrix partly white. Wing (adult male), 88–93, (female) 86; tail, 72–76, (female) 69; bill, 16–18; its depth at base, 12–13.

By the partly white outer web of the external rectrix and its large bill, *D. d. crassirostris* diverges in the direction of *D. speculifera*, but the latter bird differs in much greater dimensions (wing, 109–118), in possessing an extensive white alar speculum, and in lacking the white tips to the rectrices as well as every trace of rufous on the abdomen. It may well be maintained as a distinct species, though it might ultimately prove to be merely a strongly characterized geographical representative form.

*Additional material examined*.—Chile: Coquimbo, 3.

- forests of Chiloé and Valparaíso; Fraser, Proc. Zool. Soc. Lond., 11, p. 113, 1843—Chile (habits); Yarrell, l.c., 15, p. 53, 1847—Chile (eggs descr.); Des Murs, in Gay, Hist. Ffs. Pol. Chile, Zool., 1, p. 359, 1847—Chile generally; Boeck, Naumannia, 1855, p. 505—Valdivia, Chile; Kittlitz, Denkw. Reise, 1, pp. 114, 137, 147, 154, 1858—San Tomé and near Valparaíso, Chile; Frauenfeld, Verh. Zool.-Bot. Ges. Wien, 10, Abh., p. 637, 1860—near Santiago, Chile; Philippi, Anal. Univ. Chile, 31, p. 265, 1868—Chile (except northern parts); Landbeck, Zool. Garten, 18, p. 258, 1877—Chile (habits, nest, and eggs); Lataste, Act. Soc. Scient. Chili, 3, pp. cxiv, cxv, 1893—Bureo (Nuble) and Ninhue (Maule), Chile; Waugh and Lataste, l.c., 4, pp. lxxxvii, clxxii, 1894—Peñaflor (Santiago) and San Alfonso (Quillota), Chile; Lataste, l.c., 5, pp. xxxiv, lxxxvii, 1895—Callihue (Curicó) and Llohué (Itata), Chile; Housse, Rev. Chil. Hist. Nat., 29, p. 148, 1925—San Bernardo, Santiago.
- Dolichonyx griseus* Lesson, L'Institut, 2, No. 72, p. 317, 1834—Valparaíso, Chile; idem, in Bougainville, Journ. Navig. Thétis, 2, p. 324, 1837—Valparaíso.
- Emberiza diuca* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 77, 1837—part, Valparaíso.
- Pipilo cinerea* Peale, U. S. Expl. Exp., 8, p. 123, 1848—road from Valparaíso to Santiago, Chile (type in U. S. National Museum).
- Diuca molinae* (Reichenbach MS.) Bibra, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 5, p. 130, 1853—Cordillera [of Santiago], Chile.
- Hedyglossa diuca* Cabanis, Mus. Hein., 1, p. 135, 1851—Chile; Hartlaub, Naumannia, 3, p. 214, 1853—Valdivia, Chile; Pelzeln, Reise Novara, Zool., 1, p. 93, 1865—Chile (eggs descr.).
- Phrygilus diuca* Cassin, in Gilliss, U. S. Astr. Exp., 2, p. 180, 1855—Santa Lucia, Chile; Germain, Proc. Bost. Soc. N. H., 7, p. 312, 1860—Santiago, Chile (nesting habits).
- Diuca vera* Burmeister, Journ. Orn., 8, p. 255, 1860—Mendoza (new name for *Fringilla diuca* Molina); idem, Reise La Plata St., 2, p. 483, 1861—near Mendoza (spec. in Halle Museum examined).
- Diuca grisea* Sclater, Cat. Coll. Amer. Bds., p. 111, 1862—Chile; idem, Proc. Zool. Soc. Lond., 1867, pp. 322, 327—Chile; Sclater and Salvin, Ibis, 1870, p. 499—Ancud, Chiloé; Salvin, l.c., 1883, p. 421—part, Talcahuano, Chile; Sclater and Hudson, Arg. Orn., 1, p. 55, 1888—Chile and Mendoza; Oustalet, Miss. Sci. Cap Horn, 6, p. B93, 1891—Missioneros [near Santa Cruz], Patagonia (Nov., 1882; spec. examined); Reed, Anal. Univ. Chile, 93, p. 200, 1896—Chile; Lane, Ibis, 1897, p. 18—Hacienda Mansel (Santiago) and Coronel, Chile; Albert, Anal. Univ. Chile, 108, p. 231, 1901—Chile (monog.); Reed, Av. Prov. Concepción, p. 21, 1904—Concepción, Chile; Housse, Rev. Chil. Hist. Nat., 28, p. 49, 1924—Isla La Mocha, Chile; Bullock, l.c., 33, pp. 125, 191, 1929—Cerro de Nahuelbuta and Angol, Malleco.
- Diuca griseus* Reed, Anal. Univ. Chile, 49, p. 544, 1877—Cauquenes, Colchagua.



*Diuca diuca* Sharpe, Cat. Bds. Brit. Mus., 12, p. 800, 1888—part, spec. a-h, Chiloé and Talcahuano, Chile; Allen, Bull. Amer. Mus. N. H., 2, p. 84, 1889—Valparaíso, Chile;<sup>1</sup> Schalow, Zool. Jahrb. (Syst.), Suppl., 4, p. 723, 1898—Valparaíso and Santiago, Chile; Paessler, Zeits. Ool. & Orn., 16, p. 27, 1906—Coronel, Chile (nest and eggs); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 399, 1910—Patagonia (Missioneros) and Mendoza; idem, Bol. Soc. Physis, 1, p. 359, 1914—Mendoza; Sanzin, El Hornero, 1, p. 152, 1918—Las Catitas and Alto Verde, Mendoza; Barros, Rev. Chil. Hist. Nat., 24, p. 150, 1920—Nilahue, Curicó; idem, l.c., 25, p. 191, 1921—Cordillera of Aconcagua, Chile; Wetmore, Bull. U. S. Nat. Mus., 133, p. 408, 1926—Concon, Valparaíso; idem, Univ. Calif. Pub. Zool., 24, p. 463, 1926—Arroyo Anecon Grande (Rio Negro), Maitén (Rio Chubut), Lago Mosquitos (Cholila) and Rio Corcovado, Chubut; Pereyra, El Hornero, 4, p. 33, 1927—San Rafael, Mendoza; Stone, Rep. Univ. Princet. Patag. Exp., 2, (1), Orn., p. 845, 1928 (range).

*Diuca diuca diuca* Paessler, Journ. Orn., 70, p. 478, 1922—Coronel, Chile (habits, nest, and eggs); Peters, Bull. Mus. Comp. Zool., 65, p. 335, 1923—Lake Nahuel Huapi and along the Rio Limay at least as far as Paso Flores, Neuquén; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 72, 1932—Chile, from Aconcagua to Llanquihue (monog.).

*Dinca* [sic] *minor* (not of Bonaparte) Paessler, Zeits. Ool. Orn., 16, p. 30, 1906—Coronel, Concepción, Chile.

*Diuca matutina* [sic] Jaffuel and Pirión, Rev. Chil. Hist. Nat., 31, p. 109, 1927—Marga-Marga Valley, Valparaíso.

*Range*.—Chile, from Aconcagua to Llanquihue, and extreme western Argentina, along the eastern base of the Andes from Mendoza south to western Chubut; accidental in eastern Patagonia (one record from Missioneros, near Santa Cruz; November, 1882).<sup>2</sup>

22: Chile (El Salto, Santiago, 1; Polpaico, Santiago, 1; Hacienda Gualpencillo, Concepción, 3; Concepción, 1; Curacautin, Malleco, 1; Mafil, Valdivia, 6; Quellon, Chiloé Island, 8; Rio Nirehuau, 1).

<sup>1</sup> The localities "Reyes" and "Mapiri," Bolivia, are due to a transposition of labels.

<sup>2</sup> Three specimens from Mendoza are absolutely identical with a Chilean series, and five birds from the region round Lake Nahuel Huapi likewise agree in all essential particulars, notably in dimensions and large bill (wing of adult males, 90-91; tail, 70-72; bill, 13-14). Typical *diuca* thus appears to range in a narrow strip along the Argentine base of the Andes from Mendoza through the extreme western parts of Neuquén, Rio Negro, and Chubut, the most southerly locality being the Rio Corcovado, as reported by Wetmore. A single adult male collected by Lebrun at Missioneros (near Santa Cruz) in November, 1882, according to size and heavy bill (wing, 93; tail, 73; bill, 13), must also be referred to the present form, although its occurrence in eastern Patagonia is rather singular.

*Additional material examined*.—Chile: Concon, Valparaíso, 3; Valparaíso, 1; Peñaflor, Santiago, 1; Santiago, 1; Concepción, 1; Valdivia, 1; Desagüe, Valdivia, 1; Puerto Varas, Llanquihue, 2.—Argentina: Mendoza, 3; Lago Nahuel Huapi, 1; Rio Traful, Neuquén, 3; Collon Cura, Neuquén, 1; Missioneros (near Santa Cruz), Santa Cruz, 1.

**\**Diuca diuca minor* Bonaparte.<sup>1</sup> LESSER DIUCA FINCH.**

*Diuca minor* Bonaparte, *Consp. Gen. Av.*, 1, (2), p. 476, 1850—Patagonia = Rio Negro (type in Paris Museum examined); Burmeister, *Journ. Orn.*, 8, p. 255, 1860—Pampas region [of Argentina]; idem, *Reise La Plata St.*, 2, p. 483, 1861—in the Pampa near San Luis, Córdoba, and Las Palmitas (spec. in Halle Museum examined); Hudson, *Proc. Zool. Soc. Lond.*, 1872, p. 537—Rio Negro; Sclater, l.c., 1872, p. 548—Rio Negro; Durnford, *Ibis*, 1878, p. 393—Tambo Point, Patagonia; Doering, in Roca, *Inf. Ofic. Exp. Rio Negro, Zool.*, p. 39, 1881—between the Rio Colorado and Rio Negro; Barrows, *Bull. Nutt. Orn. Cl.*, 8, p. 131, 1883—Concepción del Uruguay; Gibson, *Ibis*, 1885, p. 277—Paysandú, Uruguay; Sclater and Hudson, *Arg. Orn.*, 1, p. 56, 1888—Rio Negro, Argentina (habits); Sharpe, *Cat. Bds. Brit. Mus.*, 12, p. 801, 1888—Rio Negro and Tambo Point, Patagonia; Stempelmann and Schulz, *Bol. Acad. Nac. Cienc. Córdoba*, 10, p. 399, 1890—Córdoba; C. Burmeister, *Anal. Mus. Nac. Buenos Aires*, 3, p. 318, 1890—Fortín Castre, mouth of the Rio Negro; Oustalet, *Miss. Scient. Cap Horn*, 6, p. B94, 1891—vicinity of Santa Cruz (spec. in Paris Museum examined); Koslowsky, *Rev. Mus. La Plata*, 6, p. 279, 1895—Chilecito, La Rioja; Lillo, *Anal. Mus. Nac. Buenos Aires*, 8, p. 180, 1902—Rio Salí, Tucumán; idem, *Rev. Letr. Cienc. Soc.*, 3, No. 13, p. 45, 1905—Rio Salí; Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 399, 1910 (range in Argentina); Giacomelli, *El Hornero*, 3, p. 69, 1923—La Rioja (common in winter); Marelli, *Mem. Min. Obr. Públ. for 1922–23*, p. 661, 1924—Prov. Buenos Aires and Entre Ríos; Wetmore, *Bull. U. S. Nat. Mus.*, 133, p. 408, 1926—General Roca, Rio Negro, and Victorica, Pampa; idem, *Univ. Calif. Pub. Zool.*, 24, p. 464, 1926—Arroyo Tapiluke, Rio Negro; Pereyra, *El Hornero*, 4, p. 33, 1927—Conhelo, Pampa; Stone, *Rep. Princet. Univ. Exp. Patagonia*, 2, (1), *Orn.*, p. 846, 1928—Patagonia.

*Emberiza diuca* (not *Fringilla diuca* Molina) Lafresnaye and d'Orbigny, *Syn. Av.*, 1, in *Mag. Zool.*, 7, cl. 2, p. 77, 1837—part, "varietas multo minor," Patagonia.

*Fringilla diuca* Darwin, *Zool. Beagle*, 3, *Birds*, p. 93, 1839—part, Rio Negro, Patagonia.

*Diuca diuca* Castellanos, *El Hornero*, 5, p. 328, 1934—Valle de los Reartes, Córdoba.

*Diuca diuca minor* Peters, *Bull. Mus. Comp. Zool.*, 65, p. 336, 1923—Rio Colorado and San Antonio, Patagonia.

<sup>1</sup> *Diuca diuca minor* Bonaparte: Similar to *D. d. diuca*, but considerably smaller, the bill particularly so. Wing, 81–85; tail, 62–70; bill, 11½–13.

Breeding birds from Pampa (Victorica) are identical with a series from the Rio Negro. Others from San Luis (May, September) and Santa Cruz (no date), as well as a young male from Catamarca (Chumbicha; July 5) are likewise typical of this form. Specimens from Laguna Doro, Rio Limay, Neuquén (December 20) have the small bill of *D. d. minor*, but vary somewhat in other dimensions. While three (two males, one female) with wings of from 79 to 82 mm. fully agree with Rio Negro and Pampa specimens, one male has a wing of 88 mm., and thus closely approaches typical *diuca*.

*Additional material examined.*—Santa Cruz, Santa Cruz, 1; Rio Negro, 5; General Roca, Rio Negro, 5; Victorica, Pampa, 4; San Luis, 1; Estancia El Bosque, San Luis, 1; Laguna Doro, Rio Limay, 4.

*Range*.—Patagonia, from Santa Cruz north through Chubut and Rio Negro to the Rio Colorado, the Gobernación de la Pampa, San Luis, and Córdoba; in winter migrating north to Tucumán (Rio Salí), Entre Ríos (Concepción del Uruguay), and Uruguay (Paysandú).

5: Argentina (Chumbicha, Catamarca, 1; Andalgalá, Catamarca, 1; Belen, Catamarca, 1; Passo Ibanez, Santa Cruz, 2).

### Genus **IDIOPSAR** Cassin

*Idiopsar* Cassin, Proc. Acad. Nat. Sci. Phila., 1866, p. 414—type, by monotypy, *Idiopsar brachyurus* Cassin.

### **Idiopsar brachyurus** Cassin. SHORT-TAILED FINCH.

*Idiopsar brachyurus* Cassin, Proc. Acad. Nat. Sci. Phila., 1866, p. 414—

La Paz, Bolivia (type in U. S. National Museum); Sclater, Ibis, 1884, p. 240, pl. 7—La Paz (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 797, 1888—La Paz; Berlepsch, Ibis, 1898, p. 62—Iquico and Rinconada (Illimani), Bolivia (crit., meas.); Robinson, Ibis, 1906, p. 387—neighborhood of La Paz, Bolivia; Swales, Auk, 43, p. 547, 1926—Laguna Eslocada, Sierra de Zenta (alt. 4,500 metr.), Jujuy; Dabbene, El Hornero, 3, p. 390, 1926—Las Pavas, Sierra de Aconquija (alt. 4,000 metr.), Tucumán; Budin, l.c., 4, p. 411, 1931—Sierra de Zenta, Jujuy.

*Range*.—Puna zone of Bolivia (La Paz, Iquico, Rinconada, Dept. La Paz) and northwestern Argentina (Sierra de Zenta, Jujuy; Las Pavas, Sierra de Aconquija, Tucumán).<sup>1</sup>

### Genus **PHRYGILUS** Cabanis<sup>2</sup>

*Phrygilus* Cabanis, Arch. Naturg., 10, (1), p. 289, 1844—type, by orig. desig., *Fringilla gayi* [Eyndoux and] Gervais.

*Rhopospina* Cabanis, Mus. Hein., 1, p. 135, October, 1851—type, by monotypy, *Fringilla fruticeti* Kittlitz.

*Geospizopsis* Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 955, 1856—type, by tautonymy, *Passerculus geospizopsis* Bonaparte.

*Corydospiza* Sundevall, Meth. Nat. Av. Disp. Tent., p. 33, 1872—type, by orig. desig., *Fringilla alaudina* Kittlitz.

### \***Phrygilus patagonicus** Lowe.<sup>3</sup> PATAGONIAN GRAY-HEADED FINCH.

<sup>1</sup> *Material examined*.—Bolivia, La Paz: Iquico, 5; Rinconada, 7.

<sup>2</sup> As to the limits of the genus, I am in complete agreement with Wetmore (Bull. U. S. Nat. Mus., 133, pp. 405–406, 1926), and do not consider *Corydospiza* to be of more than subgeneric value.

<sup>3</sup> In "The Birds of Chile" (Field Mus. Nat. Hist., Zool. Ser., 19, pp. 54–55, 1932), we have stated our reasons for regarding *P. patagonicus*, at least for the present, as a separate species, and we cannot see our way of following Dr. Dabbene's proposal to associate *P. patagonicus* specifically with *P. atriceps*. The

*Fringilla formosa* (not of Latham, 1790) Gould, in Darwin, Zool. Beagle, 3, Birds, p. 93, Nov., 1839—Tierra del Fuego (type, from Good Success Bay, now in British Museum, examined).

*Phrygilus gayi patagonicus* Lowe, Ibis, (11), 5, p. 515, 1923—new name for *Fringilla formosa* Gould, preoccupied.

*Chlorospiza gayi* (not *Fringilla gayi* Gervais) Des Murs, in Gay, Hist. Fis. Polit. Chile, Zool., 1, p. 355, 1847—part, descr. and hab. "sur de la República"; Philippi, Anal. Univ. Chile, 31, p. 264, 1868—Valdivia, Chile; Landbeck, Zool. Garten, 18, p. 255, 1877—restricted to the south of Chile, very rare in the north; Lataste, Act. Soc. Scient. Chili, 3, p. cxv, 1894—Ninhue, Maule.

*Phrygilus gayi* Hartlaub, Naumannia, 3, p. 214, 1853—Valdivia; Sclater, Cat. Coll. Amer. Bds., p. 110, 1862—Chile; Sclater and Salvin, Ibis, 1868, p. 186—Gregory Bay, Magellan Straits; idem, Ibis, 1869, p. 285 (crit.); idem, Proc. Zool. Soc. Lond., 1878, p. 432—Puerto Bueno; Sharpe, l.c., 1881, p. 7—Tom Bay, Magellan Straits; idem, Cat. Bds. Brit. Mus., 12, p. 781, 1888—"Chile," Straits of Magellan (Puerto Bueno, Tom Bay, Hermit Island), and Tierra del Fuego; Ridgway, Proc. U. S. Nat. Mus., 12, p. 132, 1889—part, Laredo Bay; Oustalet, Miss. Sci. Cap Horn, 6, p. B84, 1891—Santa Cruz, Beagle Channel, Orange Bay, Hoste Island, and Pictou Island; Reed, Anal. Univ. Chile, 93, p. 199, 1896—southern Chile; Lane, Ibis, 1897, p. 16— from Chiloé to Arauco; Schalow, Zool. Jahrb., Suppl., 4, p. 727, 1898—Tierra del Fuego and Ushuaia; Albert, Anal. Univ. Chile, 108, p. 209, 1901—part, southern Chile; Dabbene, Anal. Mus. Nac. Buenos Aires, 8, p. 362, 1902—Ushuaia and Lapataia, Tierra del Fuego; Nicoll, Ibis, 1904, p. 45—Gray's Harbour, Smythe's Channel; Crawshaw, Bds. Tierra del Fuego, p. 52 (col. pl.), 1907—Rio McClelland Settlement; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 397, 1910 (range in Argentina); Peters, Bull. Mus. Comp. Zool., 65, p. 334, 1923—about Lake Nahuel Huapi, Rio Negro; Bullock, Rev. Chil. Hist. Nat., 33, pp. 125, 190, 1929—Nahuelbuta and Angol, Malleco.

*Phrygilus formosus* Bonaparte, Conspect. Gen. Av., 1, (2), p. 477, 1850—Tierra del Fuego; Ridgway, Proc. U. S. Nat. Mus., 10, p. 432, 1887—Straits

latter is closely connected with *P. g. punensis* by certain individual variations, and both are inhabitants of the Puna zone, whereas *P. patagonicus*, in spite of the frequent presence of orange-chestnut or tawny tones on the back, stands apart by the coloration of the female and immature plumages, and besides has a somewhat different habitat, being restricted to the lower Temperate zone. *P. patagonicus*, may, however, ultimately prove to be a geographical representative of the *P. gayi* group. This problem needs detailed field-work in western Argentina, and until the breeding ranges of *P. g. caniceps* and *P. patagonicus* have been worked out, the latter may provisionally be accorded specific rank.

Series from western Argentina agree with others from southern Chile and the Straits of Magellan.

*Additional material examined.*—Chile: Santiago, 1 (August); Maquegua, Arauco, 1; Temuco, Maquehue, Cautin, 1; Corral, Valdivia, 1; Valdivia, 3; Lago Llanquihue, Llanquihue, 1; Desagüe, near Puerto Montt, Llanquihue, 4; unspecified, 8.—Straits of Magellan: Punta Arenas, 16; Laredo Bay, 2; Puerto Bueno, 2; Gray's Harbor, Smythe's Channel, 1; Hermit Island, 3; Good Success Bay, Tierra del Fuego, 1; Tierra del Fuego, 3; Santa Cruz, Patagonia, 1.—Argentina: Bariloche, Lago Nahuel Huapi, 10; Valle del Lago Blanco, Chubut, 8 (Feb., Oct., Nov.).

of Magellan, Punta Arenas, Tierra del Fuego (monog.); idem, l.c., 12, p. 131, 1889—Sandy Point (spec. examined).

*Phrygilus gayi aldunatoi* (not *Chlorospiza aldunatoi* Des Murs) Housse, Rev. Chil. Hist. Nat., 29, p. 226, 1925—Isla La Mocha, Chile.

*Phrygilus gayi gayi* Barros, Rev. Chil. Hist. Nat., 24, p. 149, 1920—Nilahue, Curicó, Chile.

*Phrygilus patagonicus* Wetmore, Univ. Calif. Pub. Zool., 24, p. 458, 1926—Bariloche, Rio Negro, and Rio Corcovado, Chubut; Stone, Rep. Princet. Univ. Exp. Patag., 2, p. 838, 1928—Patagonia (Cape Fairweather, Punta Arenas, Coy Inlet, Santa Cruz); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 53, 1932—Chile (monog., plumages, range); Reynolds, El Hornero, 5, p. 342, 1934—Tierra del Fuego; idem, Ibis, 1935, p. 70—Cape Horn (breeding).

*Phrygilus atriceps patagonicus* Dabbene, Anal. Soc. Cient. Arg., 115, p. 300, 1933—Chile and western Argentina (monog.).

(?) *Phrygilus caniceps* (not of Burmeister) Hartert and Venturi, Nov. Zool., 16, p. 180, 1909—part, Ushuaia, Tierra del Fuego.

**Range.**—Central and southern Chile (most northerly breeding record from the Nilahue Valley, Curicó) south to Tierra del Fuego, and on the Argentine side of the Andes north to Neuquén (Lake Nahuel Huapi).

24: Chile (Rio Colorado, Maule, 4; Lake Gualletué, Cautin, 1; Quellon, Chiloé Island, 14; Rio Inio, Chiloé Island, 3; Melinka, Ascencion Island, Guaitecas Islands, 2).

**\**Phrygilus gayi gayi* (Gervais).<sup>1</sup> GAY'S GRAY-HEADED FINCH.**

*Fringilla gayi* [Eydoux and] Gervais, Mag. Zool., 4, cl. 2, pl. 23, 1834—Chile (type lost); Eydoux and Gervais, Voyage Favorite, Zool., 5, (2), p. 46, 1838—Valparaiso; Bridges, Proc. Zool. Soc. Lond., 9, p. 94, 1841—Chile, between 34° and 35°, near the summit of the Andes; Fraser, l.c., 11, p. 143, 1843—Chile, in winter on the coast.

*Chlorospiza aldunatoi* Des Murs, in Gay, Hist. Fís. Pol. Chile, Zool., 1, p. 356, 1847—part, Chile (type in Paris Museum examined); Philippi, Anal. Univ. Chile, 31, p. 264, 1868—central and northern provinces of Chile; Landbeck, Zool. Garten, 18, p. 256, 1877—vicinity of Santiago; Gigoux, Rev. Chil. Hist. Nat., 28, p. 84, 1924—Caldera, Atacama.

*Phrygilus gayi* Bibra, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 5, p. 130, 1853—Valparaiso; Cassin, in Gilliss, U. S. Astr. Exp., 2, p. 180, 1855—Chile; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 93, 1865—Chile (spec. examined); Sclater, Proc. Zool. Soc. Lond., 1867, pp. 322, 337—Chile;

<sup>1</sup> In "The Birds of Chile" we have discussed at length the nomenclature of the large, yellow-backed, white-vented species with pronounced sexual dimorphism. The type of *F. gayi* being lost, there has been much controversy about the applicability of Gervais's term, and the question will probably always remain more or less uncertain. If *F. gayi* be rejected, *Chlorospiza aldunatoi* Des Murs, the type of which we have examined in the Paris Museum, will have to take its place.

**Additional material examined.**—Chile: Coquimbo, 1; Santiago, 5; unspecified, 17.

Salvin, l.c., 1883, p. 421—Coquimbo (spec. examined); Ridgway, Proc. U. S. Nat. Mus., 10, p. 431, 1887—Santiago, Chile (monog.); Albert, Anal. Univ. Chile, 108, p. 209, 1901—part, northern Chile.

*Phrygilus aldunatei* Sclater and Salvin, Ibis, 1869, p. 285—part, Chile; Sharpe, Cat. Bds. Brit. Mus., 12, p. 783, 1888—part, spec. a-g, Chile (Coquimbo, Santiago); Reed, Anal. Univ. Chile, 93, p. 199, 1896—northern Chile; Jaffuel and Pirion, Rev. Chil. Hist. Nat., 31, p. 109, 1927—Marga-Marga Valley, Valparaíso.

*Phrygilus aldonatii* [sic] Reed, Anal. Univ. Chile, 49, p. 543, 1877—Baños de Cauquenes, Colchagua.

*Phrygilus gayi gayi* Lowe, Ibis, 1923, p. 514—part, Chile (crit.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 56, 1932—Atacama to Colchagua, Chile (monog., plumages, range); Barros, Rev. Chil. Hist. Nat., 38, p. 136, 1934—Cordillera Peuco, O'Higgins.

*Phrygilus gayi aldunatei* Barros, Rev. Chil. Hist. Nat., 25, p. 189, 1921—Cordillera of Aconcagua; Housse, l.c., 29, p. 147, 1925—San Bernardo, Santiago.

*Chlorospiza gayi* Gigoux, Rev. Chil. Hist. Nat., 28, p. 84, 1924—Caldera, Atacama.

*Range*.—Cordilleras of Chile, from Atacama to Colchagua; in winter descending to the coast.

19: Chile (Caldera, Atacama, 5; Domeyko, Atacama, 2; Paiguano, Coquimbo, 2; Balala, Rio Turbio, Coquimbo, 1; Baños del Toro, Coquimbo, 4; Los Andes, Aconcagua, 2; Rio Blanco, Aconcagua, 1; Los Condes, Santiago, 1; unspecified, 1).

**\**Phrygilus gayi caniceps* Burmeister.<sup>1</sup> BURMEISTER'S GRAY-HEADED FINCH.**

<sup>1</sup> *Phrygilus gayi caniceps* Burmeister: Exceedingly similar to *P. g. gayi*, but on average larger with somewhat heavier, longer bill; dorsal surface of adult male in fresh plumage less yellow, more greenish. Wing (adult males), 90–98; tail, 65–72; bill, 13–15.

Much uncertainty existed about the name of the Argentine representative of Gay's Gray-headed Finch and its distinctness from the Chilean bird. Burmeister described *P. caniceps* from specimens in female plumage obtained near Mendoza, but failed to recognize their specific identity with other examples (adult males) from the same locality recorded by him as *P. gayi*. Thanks to the courtesy of Professor Brühl, I have been favored with the loan of Burmeister's material consisting of four specimens from near Mendoza. Nos. 1444a, 1444b, in female plumage, are the originals of *P. caniceps*. Nos. 1445a, 1445b, in the garb of the adult male [although the second is marked "female"], are the specimens listed by Burmeister as *P. gayi*. There can be no question whatever that the four birds pertain to one and the same form, the differences being merely sexual. While No. 1445b is too much worn to be of any use, the other male (No. 1445a), which is in very good plumage, compares well with ours from Rio Turbio, Chile (*P. g. gayi*), resembling it notably in broad green jugular band and deepness of yellow color below, and differs only by stronger bill and somewhat more greenish back. The types of *P. caniceps*, in coloration, are identical with Chilean females (*P. g. gayi*) from Domeyko and Paiguano. Study of very extensive series from various points on the Argentine slope of the Andes and from southeastern Patagonia (Rio Gallegos, Coy Inlet, Santa Cruz) failed to reveal any constant

*Phrygilus caniceps* Burmeister, Journ. Orn., 8, p. 256, 1860—Mendoza, Argentine (types in Halle Museum examined; descr. of female); idem, Reise La Plata St., 2, p. 487, 1861—Mendoza; Durnford, Ibis, 1878, p. 393—Chubut Valley (spec. in British Museum examined); Barrows, Bull. Nutt. Orn. Cl., 8, p. 130, 1883—Sierra de la Ventana, Prov. Buenos Aires (spec. in Museum of Comparative Zoology, Cambridge, Mass., examined); Sclater and Hudson, Arg. Orn., 1, p. 53, 1888—Mendoza, Chubut, and Sierra de la Ventana; Frenzel, Journ. Orn., 39, p. 119, 1891—Sierra de Córdoba; Hartert and Venturi, Nov. Zool., 16, p. 180, 1909—part, Santa Cruz, Patagonia; Lowe, Ibis, 1923, p. 516—Puente del Inca, Mendoza (crit.); Pereyra, El Hornero, 4, p. 33, 1927—San Rafael, Mendoza.

*Phrygilus gayi* (not *Fringilla gayi* Gervais) Burmeister, Journ. Orn., 8, p. 255, 1860—near Mendoza (spec. in Halle Museum examined; descr. of male); idem, Reise La Plata St., 2, p. 487, 1861—near Mendoza; White, Proc. Zool. Soc. Lond., 1882, p. 599—Fuerte de Andalgalá, Catamarca (spec. examined); Sclater and Hudson, Arg. Orn., 1, p. 52, 1888—near Mendoza; Ridgway, Proc. U. S. Nat. Mus., 12, p. 132, 1889—part, Gregory Bay (spec. examined); Koslowsky, Rev. Mus. La Plata, 6, p. 290, 1895—Catamarca; Gosse, in Fitzgerald, The Highest Andes, p. 347, 1899—Horcones and Inca, Aconcagua Valley, Mendoza (spec. examined); Wetmore, Univ. Calif. Pub. Zool., 24, p. 459, 1926—Loma Partida and Arroyo Salado, Rio Negro; Stone, Rep. Princet. Univ. Exp. Patag., 2, p. 837, 1928—part, Punta Arenas, Patagonia.

*Phrygilus aldunatii(ei)* (not *Chlorospiza aldunatei* Des Murs) Sharpe, Cat. Bds. Brit. Mus., 12, p. 783, 1888—part, spec. h-k, Santa Cruz (Patagonia) and Catamarca (spec. examined); Salvadori, Ann. Mus. Civ. Stor. Nat. Genova, (2), 20, p. 618, 1900—Santa Cruz and Gregory Bay, Patagonia; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 45, 1905—Lara, Tucumán

difference. Birds in comparable plumage from so widely distant localities as Tucumán (Lara; Colalao del Valle), Catamarca (Fuerte de Andalgalá), Mendoza (Puente del Inca), western Rio Negro (Huanuluan; Maquinchao), Chubut (Valle del Lago Blanco), and the Santa Cruz region of Patagonia agree perfectly together. Two adult males from the Straits of Magellan (Gregory Bay) are not different either. Birds in fresh plumage are more greenish above and purer yellow below than males in abraded condition, *P. g. koslowskii* being based on the first-named "phase." Specimens with orange-tinged chest and practically concealed greenish jugular band are individual variants found alongside normally colored birds. We have seen this mutation from Huanuluan and Chubut. While—aside from the slightly more greenish dorsal surface of the males recognizable only in fresh plumage—no color difference exists between Chilean and Argentine examples, the latter—with few exceptions—have markedly larger, longer bills, and, in general, somewhat greater dimensions, so that their segregation under Burmeister's term *caniceps* seems justifiable. The breeding range of *P. g. caniceps* remains to be determined by future field work. Birds in more or less worn breeding condition have been examined from Tucumán (Lara), Mendoza (Puente del Inca), Catamarca (Fuerte de Andalgalá), Rio Negro (Maquinchao), and Straits of Magellan (Gregory Bay). For measurements, cf. "The Birds of Chile," p. 58.

*Material examined.*—Tucumán: Lara, 1; Colalao del Valle, 1.—Catamarca: Fuerte del Andalgalá, 3.—Mendoza: Puente del Inca, 6; Potrerillos, 1; unspecified, 4.—Rio Negro: Huanuluan, 11; Maquinchao, 2.—Chubut: Valle del Lago Blanco, 15; Chubut Valley, 2.—Santa Cruz: Santa Cruz, 3; Rio Gallegos, 9; near Coy Inlet, 5; Cape Fairweather, 6; Gregory Bay, Straits of Magellan, 2.—Buenos Aires: Rio Colorado, 2; Sierra de la Ventana, Naposta Chica, 1.

(ex Baer); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 397, 1910—Patagonia (Santa Cruz), Tucumán (Lara), and Catamarca; Sanzin, El Hornero, 1, p. 152, 1918—Chacras Coria, Mendoza; Peters, Bull. Mus. Comp. Zool., 65, p. 334, 1923—Maquinchao and Huanuluan, Rio Negro (spec. examined); Pereyra, El Hornero, 4, p. 33, 1927—San Rafael, Mendoza.

[*Phrygilus gayi*] subsp. *a* *Phrygilus caniceps* Sharpe, Cat. Bds. Brit. Mus., 12, p. 784, 1888—Fuerte de Andalgalá, Catamarca, and Chubut, Patagonia (spec. examined).

*Phrygilus aldunatei* var. *caniceps* Baer, Ornith., 12, p. 218, 1904—Lara, Tucumán (spec. in Paris Museum examined).

*Phrygilus aldunatii* subsp. *caniceps* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 397, 1910—Chubut, Catamarca (Fuerte de Andalgalá), Mendoza, and Sierra de la Ventana.

*Phrygilus gayi koslowskii* Lowe, Ibis, (11), 5, p. 515, 1923—Valle del Lago Blanco, Chubut (type in British Museum examined).

*Phrygilus gayi gayi* Dabbene, Anal. Soc. Cient. Arg., 115, p. 183, 1933—Catamarca (Lago Helado, Gualfin, Laguna Blanca), Chubut (Quitripile), and Santa Cruz (Aguada Grande) (monog.).

*Phrygilus gayi caniceps* Barros, Rev. Chil. Hist. Nat., 34, p. 319, 1930—Las Leñas, Puente del Inca, and Cajón de las Vacas, Cordillera de Mendoza; Dabbene, Anal. Soc. Cient. Arg., 115, p. 188, 1933—Chubut (Puerto Burro, Salina Grande, Leleque), Neuquén (Pilcomayen), Mendoza (Guamperito), and Tucumán (Aconquija, Cumbres Calchaquies) (monog.).

*Range*.—Western and southern Argentina, from the Cordilleras of Tucumán and Catamarca along the eastern slope of the Andes south to the Dept. of Santa Cruz and the Straits of Magellan; in winter occasional in Buenos Aires Province (Sierra de la Ventana).

1: Argentina (Las Pavas, Tucumán, 1).

**\**Phrygilus gayi chloronotus* Berlepsch and Stolzmann.<sup>1</sup> OLIVE-BACKED GRAY-HEADED FINCH.**

<sup>1</sup> *Phrygilus gayi chloronotus* Berlepsch and Stolzmann differs in the male sex from *P. g. punensis* by larger (longer as well as stouter) bill; paler plumbeous head; yellowish olive, not tawny upper back; lighter, more yellowish under parts with little, if any, tawny suffusion on the chest; while the female may be distinguished by its paler coloration and larger bill. Wing (male), 94–100; tail, 65–70; bill, 16½–18.

In a large series from northern and central Peru I do not find any approach to the tawny-russet upper back of *punensis*, as represented by specimens from La Paz, Bolivia, though certain individuals, irrespective of locality, have a more orange tinge above than others. Specimens from southeastern Peru (Urcos, Cuzco; Urubamba; Ollachea, near Macusani, Carabaya) are also decidedly referable to the present form, but average darker, more orange below than the inhabitants of the more northern parts of Peru. Chapman's remarks on the variability in the coloring of the upper parts were possibly based on the birds from La Raya, at the head of the Urubamba Valley, where intergradation to *punensis* may be expected to take place.

*Additional material examined*.—Peru: Cajabamba, 3; Cutervo, 1; Tarma, Junín, 2; San Mateo, Lima, 3; Tinta, 2; Pitumarca, 1; Urcos, Cuzco, 2; Urubamba Valley, alt. 3,000 metr., 3; Ollachea, near Macusani, Carabaya, 2.



*Phrygilus chloronotus* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 350—Ingapirca and Tarma, Dept. Junín, Peru (type, from Tarma, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 175, 1927).

*Phrygilus gayi* (not *Fringilla gayi* Gervais) Tschudi, Arch. Naturg., 10, (1), p. 290, 1844—Peru; idem, Faun. Peru., Orn., p. 218, 1846—Peru; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 520—Maraynioc, Acancocha, and Junín, Dept. Junín; idem, l.c., 1880, p. 199—Cutervo, Peru; Sclater, l.c., 1881, p. 486—western side of the Cordillera of Lima (alt. 15,000 ft.); Taczanowski, Orn. Pér., 3, p. 32, 1886—Peru (Maraynioc, Acancocha, Junín, Chupun, Cacas, Palcamayo, Tarma, San Mateo, Cutervo).

*Phrygilus atriceps* (not *Emberiza atriceps* Lafresnaye and d'Orbigny) Sclater, Proc. Zool. Soc. Lond., 1873, p. 780—Paucartambo, Dept. Cuzco, Peru; idem and Salvin, l.c., 1876, p. 16—Paucartambo (spec. examined).

[*Phrygilus gayi*] subsp.  $\beta$  *Phrygilus punensis* (not of Ridgway) Sharpe, Cat. Bds. Brit. Mus., 12, p. 785, 1888—Andes of Lima and Tinta, Peru.

*Phrygilus punensis* (?) Salvin, Nov. Zool., 2, p. 9, 1895—Cajabamba, Huamachuco, and Cajamarca, Peru.

*Phrygilus gayi punensis* Chapman, Bull. U. S. Nat. Mus., 117, p. 112, 1912—La Raya, Cuzco, and Huaracundo Canyon, Urubamba, Peru (crit.).

*Phrygilus punensis chloronotus* Lowe, Ibis, 1923, p. 517—Peru (crit.).

*Phrygilus gayi chloronotus* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 472, 1930—Cerro de Pasco, La Quinua, and Culcui (Marañón River), Peru (crit.).

**Range.**—Upper Subtropical to Puna zones of Peru, from Cajamarca south to Cuzco (Andes of Carabaya).

14: Peru (Cajamarca, 1; Macate, Ancachs, 7; Culcui, Marañón River, 3; La Quinua, Junín, 2; Cerro de Pasco, Junín, 1).

### ***Phrygilus gayi punensis* Ridgway.<sup>1</sup> BOLIVIAN GRAY-HEADED FINCH.**

*Phrygilus punensis* Ridgway, Proc. U. S. Nat. Mus., 10, p. 434, Nov., 1887—"basin of Lake Titicaca, in Peru and Bolivia" (type, from La Paz, Bolivia, in Lafresnaye Collection, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 389, 1930); Berlepsch and Stolzmann, Orn., 13, p. 127, 1906—Puno, Peru.

*Phrygilus saturatus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 785, 1888—Tiltilo, Bolivia (type in British Museum examined).

*Phrygilus aldunatii punensis* Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—"near Valparaiso," errore, = La Paz, Bolivia.

<sup>1</sup> *Phrygilus gayi punensis* Ridgway, in the male sex, approaches *P. g. atriceps* by the tawny-russet upper back and rusty-tinged chest, but is less intensely colored, and differs furthermore by its dark plumbeous instead of black head. A single male from Puno does not materially differ from a topotypical series.

**Material examined.**—Peru: Puno, 1.—Bolivia: La Paz, 13; Iquico, Illimani, 1; Tiltilo, 1.

*Emberiza gayi* (not of Gervais) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 75, 1837—La Paz, Bolivia (spec. examined).

*Phrygilus gayi* Allen, Bull. Mus. Comp. Zool., 3, p. 353, 1876—Moho and Tiquina, Lake Titicaca.

*Phrygilus caniceps* (not of Burmeister) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 606—La Paz and Tilotilo, Bolivia.

*Phrygilus punensis punensis* Lowe, Ibis, 1923, p. 516—Bolivia and Lake Titicaca, Peru (crit.).

*Range*.—Temperate and Puna zones of extreme southern Peru (Lake Titicaca) and northwestern Bolivia (Dept. La Paz).

**\**Phrygilus gayi atriceps* (Lafresnaye and d'Orbigny).<sup>1</sup> BLACK-HEADED FINCH.**

*Emberiza atriceps* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 76, 1837—"in Peruvia, in summis Andibus, prope Tacora" = Tacora, Prov. Tacna, Peru (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 363, pl. 47, fig. 2, 1844—"sur le grand plateau Bolivien, sur le plateau occidental, et même à l'ouest de la Cordillère, surtout commun aux environs d'Oruro et de Potosi"; Philippi, Reise Wüste Atacama, pp. 81, 162, 1860—"Pugios" [= Púquios, alt. 10,800 ft.], Atacama, Chile.

*Phrygilus atriceps* Tschudi, Arch. Naturg., 10, (1), p. 289, 1844—Peru; idem, Faun. Peru., Orn., p. 248, 1846—Tacora (ex d'Orbigny); Sclater, Cat. Coll. Amer. Bds., p. 110, 1862—Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 985—Chihuata, Dept. Arequipa, Peru (spec. examined); idem, l.c., 1879, p. 606—Oruro and Potosí, Bolivia (ex d'Orbigny); Sclater, l.c., 1886, p. 397—Sacaya and "Llallcalhuay," Tarapacá, Chile (spec. examined); Ridgway, Proc. U. S. Nat. Mus., 10, p. 435, 1887—southern Peru and Bolivia (monog.); Sharpe, Cat. Bds. Brit. Mus., 12,

<sup>1</sup> *Phrygilus gayi atriceps* (Lafresnaye and d'Orbigny), the most deeply colored member of the group, is recognizable in the male sex by black head, bright chestnut-tawny back, and deeper yellow rump. Specimens from northern Chile agree with those from southwestern Peru (Arequipa and Tacna) and Oruro, while birds from central Bolivia (Cochabamba, Potosí) and Argentina, as a rule, have longer bills (for measurements, cf. "The Birds of Chile," p. 60). Jujuy birds, furthermore, are somewhat more strongly tinged with orange-brown across the chest and along flanks, an adult male from Maimará being particularly noticeable in this respect. It is quite possible that more extensive series might lead to subdivision of the black-headed race.

In its breeding range *P. g. atriceps* is obviously more westerly than its allies. In Peru, it replaces in the coast range of Arequipa the plumbeous-headed *P. g. punensis* found in the Titicaca basin, and in Bolivia it inhabits the plateau region of Oruro, Cochabamba, and Potosí, whereas in the Cordillera of La Paz *P. g. punensis* again takes its place. In northwestern Argentina, its distributional area appears to be confined to Jujuy, Los Andes, and the adjacent section of Catamarca, while farther to the east, in the Cordilleras of Tucumán and Ancaste (Fuerte de Andalgalá), another gray-headed form (*P. g. caniceps*) is met.

*Additional material examined*.—Peru: Arequipa, 1; Chihuata, above Arequipa, 1; Tacora, Tacna, 1.—Bolivia: Sajama, Oruro, 1; El Cabrada, Posta, Chuquisaca, 2; Vacas, Cochabamba, 1.—Chile, Tarapacá: Abricoya, 1; Sacaya, 3; Huasco, 1.—Argentina, Jujuy: Angosta Perchela, 3; Tilcara, 3.

p. 786, 1888—Bolivia and Chile (Tarapacá, "Iquique"); Sclater, Proc. Zool. Soc. Lond., 1891, p. 133—Sacaya, Tarapacá, Chile; Reed, Anal. Univ. Chile, 93, p. 199, 1896—Chile; Lane, Ibis, 1897, p. 17—Sacaya and Huasco, Tarapacá, Chile; Albert, Anal. Univ. Chile, 108, p. 211, 1901—Tarapacá and Tacna (monog.); Lönnberg, Ibis, 1903, p. 451—Moreno, Jujuy; Lillo, Apunt. Hist. Nat., 1, p. 44, 1909—Maimará, Jujuy; Hartert and Venturi, Nov. Zool., 16, p. 181, 1909—"Tucumán"—Angosta Perchela and Tilcara, Jujuy (spec. in Tring Museum examined); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 397, 1910—Moreno and Maimará, Jujuy; idem, Bol. Soc. Physis, 1, p. 358, 1914—same localities; Lowe, Ibis, 1923, p. 517—Bolivia, southern Peru, and Chile (crit.).

*Chlorospiza atriceps* Philippi, Ornith., 4, p. 159, 1888—Antofagasta.

*Phrygilus gayi atriceps* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 58, 1932—northern Chile (crit., range).

*Phrygilus atriceps atriceps* Dabbene, Anal. Soc. Cient. Arg., 115, p. 192, 1933—northwestern Argentina from Jujuy to Catamarca (monog.).

*Phrygilus aldunatii* (not *Chlorospiza aldunatei* Des Murs) Budin, El Hornero, 4, p. 411, 1931—Sierra de Zenta, Jujuy.

*Range*.—Temperate and Puna zones of extreme southwestern Peru (Chihuata, above Arequipa; Tacora and Putre, Tacna), the northwestern and central parts of Bolivia (depts. of Oruro, Cochabamba, and Potosí), northern Chile (provinces of Tarapacá, Antofagasta, and Atacama), and northwestern Argentina (provinces of Jujuy, Los Andes, and northwestern Catamarca).

11: Chile (Putre, Tacna, 1; Ojo de San Pedro, Antofagasta, 1; east of San Pedro, Antofagasta, 4; Rio Inacaliri, Antofagasta, 1; Antofagasta, Los Andes, 1; Pasto Ventura, Catamarca, 1; Maimará, Jujuy, 2).

### \**Phrygilus fruticeti fruticeti* (Kittlitz). MOURNING FINCH.

*Fringilla fruticeti* Kittlitz, Kupfert. Naturg. Vögel, Part 2, p. 18, pl. 23, fig. 1, 1832—Valparaiso, Chile (type in Leningrad Museum; cf. Chrostowski, Ann. Zool. Mus. Pol. Hist. Nat., 1, p. 21, 1921); Darwin, Zool. Beagle, 3, Birds, p. 94, 1839—northern Chile [=Coquimbo], Cordillera of central Chile, and Patagonia; Fraser, Proc. Zool. Soc. Lond., 11, p. 113, 1843—Chile; Kittlitz, Denkw. Reise, 1, p. 154, 1858—near Valparaiso.

*Fringilla erythrorhyncha* Lesson, L'Institut, 2, No. 72, p. 317, 1834—Coquimbo, Chile (location of type unknown); idem, in Bougainville, Journ. Navig. Thétis, 2, p. 324, 1837—Coquimbo.

*Emberiza luctuosa* Eydoux and Gervais, Mag. Zool., 6, cl. 2, p. 24, pl. 71, 1836—Chile (location of type unknown); idem, Voy. Favorite, 5, (2), p. 50, pl. 19, 1839—Chile; Bridges, Proc. Zool. Soc. Lond., 9, p. 94, 1841—Chile (lat. 34°–35°).

*Chlorospiza fruticeti* Des Murs, in Gay, Hist. Ffs. Pol. Chile, Zool., 1, p. 357, 1847—Chile; Philippi, Anal. Univ. Chile, 31, p. 264, 1868—Chile; Landbeck, Zool. Garten, 18, p. 256, 1877—Chile (habits, altitudinal range);

Reed, Anal. Univ. Chile, 49, p. 543, 1877—Cauquenes, Colchagua; Philippi, Ornith., 4, p. 159, 1888—Sibaya (Tarapacá) and Antofagasta; Lataste, Act. Soc. Scient. Chili, 3, p. cxv, 1893—Ninhue, Maule; Waugh and Lataste, l.c., 4, p. clxxii, 1895—San Alfonso, Quillota, Chile; Lataste, Proc.-Verb. Séanc. Soc. Linn. Bordeaux, 1923, p. 170—Santa Teresa, Chile; Gigoux, Rev. Chil. Hist. Nat., 28, p. 86, 1924—Caldera, Atacama.

*Phrygilus fruticeti* Bonaparte, Conspect. Gen. Av., 1, p. 476, 1850—Chile and Patagonia; Cassin, in Gilliss, U. S. Astr. Exp., 2, p. 179, 1855—Chile; Burmeister, Journ. Ornith., 8, p. 255, 1860—Sierra de Uspallata, Mendoza; idem, Reise La Plata St., 2, p. 487, 1861—Cordilleras of western Argentina; Sclater, Cat. Coll. Amer. Bds., p. 111, 1862—Chile; Pelzeln, Reise Novara, Zool., 1, Vogel, p. 93, 1865—Chile; Sclater, Proc. Zool. Soc. Lond., 1867, pp. 322, 337—Chile; Hudson, l.c., 1872, p. 537—Rio Negro, Patagonia; Durnford, Ibis, 1878, p. 393—lower Chubut (nesting); Doering, in Roca, Inf. Ofic. Exp. Rio Negro, p. 39, 1881—between the Rio Colorado and the Rio Negro; Sharpe, Proc. Zool. Soc. Lond., 1881, p. 7—Coquimbo, Chile; Sclater, l.c., 1886, p. 397—Sibaya, Tarapacá, Chile (spec. examined); Sclater and Hudson, Arg. Ornith., 1, p. 54, 1888—Rio Negro (Carmen) and Mendoza (habits); Sharpe, Cat. Bds. Brit. Mus., 12, p. 790, 1888—part, spec. a-l, q, Chile (Coquimbo, "Iquique") and Patagonia (Rio Negro, Chubut, Santa Cruz); Bartlett, Monog. Weaver-Bds. & Finches, Part 3, pl. 1 (fig. of female), 1889—part, Argentina and Chile; Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—near Valparaiso; Oustalet, Miss. Sci. Cap Horn, 9, p. B88, 1891—Santa Cruz and Missioneros, Patagonia; Schallow, Zool. Jahrb., Suppl., 4, p. 724, 1898—Ovalle, Coquimbo; Gosse, in Fitzgerald, The Highest Andes, p. 348, 1899—Aconcagua Valley, Mendoza; Salvadori, Ann. Mus. Civ. Stor. Nat. Genova, (2), 20, p. 619, 1900—Santa Cruz, Patagonia; Albert, Anal. Univ. Chile, 108, p. 216, 1901—Chile (monog.); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 180, 1902—Cordilleras of Tucumán; Lönnberg, Ibis, 1903, p. 451—Moreno, Jujuy; Baer, Ornith., 12, p. 217, 1904—Lara, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 258, 1904—La Poma, Salta; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 44, 1905—near Tafi, Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 181, 1909—Roca, Rio Negro; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 398, 1910 (range in Argentina); Dinelli, El Hornero, 1, p. 65, 1918—cerros de Tucumán, Salta, and Jujuy (nest and eggs descr.); Sanzin, l.c., 1, p. 152, 1918—Mendoza; Reed, l.c., 1, p. 273, 1919—Casa de Piedra and Guamperito, Sierra de Mendoza (breeding); Barros, Rev. Chil. Hist. Nat., 24, p. 149, 1920—Ñilahue, Curicó, Chile; idem, l.c., 25, p. 190, 1921—Cordillera of Aconcagua, Chile; Housse, l.c., 29, p. 147, 1925—San Bernardo, Santiago; Jaffuel and Pirion, l.c., 31, p. 110, 1927—Marga-Marga Valley, Valparaiso; Stone, Rep. Princet. Univ. Exp. Patag., 2, p. 842, 1928—upper Rio Chico and Arroyo Eke, Patagonia; Barros, Rev. Chil. Hist. Nat., 33, p. 363, 1929—Aconcagua, Chile; idem, l.c., 34, p. 319, 1930—Cajón de las Vacas, Cordillera de Mendoza; Budin, El Hornero, 4, p. 411, 1931—Sierra de Zenta, Jujuy.

*Rhopospina fruticeti* Cabanis, Mus. Hein., 1, p. 135, 1851—Chile; Lowe, Ibis, 1923, p. 519; Peters, Bull. Mus. Comp. Zool., 65, p. 335, 1923—Rio Colorado, Huanuluan, and Bariloche, western Patagonia.

*Emberiza carbonaria* (not of Lafresnaye and d'Orbigny) Bibra, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 5, p. 130, 1853 - Cordillera [of Santiago], Chile.

*Chlorospiza erythrorrhyncha* Philippi, Reise Wüste Atacama, p. 162, 1860—Miguel Diaz, Antofagasta.

*Phrygilus coracinus* Sclater, Proc. Zool. Soc. Lond., 1891, p. 133, pl. 13 -eight leagues from Sacaya, Tarapacá, Chile (type in British Museum examined); Reed, Anal. Univ. Chile, 93, p. 200, 1896—Tarapacá; Lane, Ibis, 1897, p. 18—near Sacaya.

*Phrygilus fruticeti fruticeti* Wetmore, Bull. U. S. Nat. Mus., 133, p. 405, 1926—General Roca and Zapata, Neuquén; idem, Univ. Calif. Pub. Zool., 24, p. 459, 1926—Nahuel Niheu, Paja Alta, Arroyo Seco, Arroyo Anecon Grande, and Arroyo Cumallo, Rio Negro; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 64, 1932—Chile (crit., variation, range); Dabbene, Anal. Soc. Cient. Arg., 115, p. 304, 1933 (range); Barros, Rev. Chil. Hist. Nat., 38, p. 136, 1934—Puerta Vieja, O'Higgins, Chile.

*Range*.—Temperate and Puna zones of western Bolivia (depts. of Oruro and Potosí), Chile (south to Curicó), western Argentina, and southern Patagonia, north to the Rio Colorado.<sup>1</sup>

22: Chile (Putre, Tacna, 5; Domeyko, Atacama, 2; La Compañía, Coquimbo, 1; Romero, Coquimbo, 3; Olmué, Aconcagua, 6; Lampa, Santiago, 2; Los Andes, Aconcagua, 1; near Sewell, O'Higgins, 1); Argentina (Laguna Blanca, Catamarca, 1).

**\**Phrygilus fruticeti peruvianus* Zimmer.<sup>2</sup> PERUVIAN MOURNING FINCH.**

*Phrygilus fruticeti peruvianus* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 12, p. 63, April, 1924—Matucana, Dept. Lima, Peru (type in Field Museum);

<sup>1</sup> In "The Birds of Chile" (pp. 65-66) we have demonstrated the identity of *P. coracinus* with *P. fruticeti*, and this conclusion has since been corroborated by Dr. Dabbene's independent investigations. Birds from the highlands of Bolivia (Oruro and Potosí) are identical with a Chilean series, and others from various parts of Argentina do not seem to be distinguishable either.

*Additional material examined*.—Bolivia: Pampa Oliaga, Oruro, 1 (adult male); Potosí, Chuquisaca, 1 (adult male).—Chile: eight leagues east of Sacaya, Tarapacá, 2; Sibaya, Tarapacá, 1; Coquimbo, 1; unspecified, 5.—Argentina: Lara, Tucumán, 1; Puente del Inca, Mendoza, 1; Sierra de la Angostura, Neuquén, 3; Paso Limay, Neuquén, 1; Rio Traful, Neuquén, 2; Collon Cura, Neuquén, 4; Rio Negro (near Carmen), 3; lower Chubut Valley, 1.

<sup>2</sup> *Phrygilus fruticeti peruvianus* Zimmer: Differs from the nominate race by somewhat shorter wings, proportionately larger bill, and more heavily streaked upper parts. It also appears that the lateral margins to the dorsal feathers in fresh plumage are of a brighter rufescent tone. Wing, 92-99, (female) 84-94; tail, 72-81, (female) 70-81; bill, 15-16.

As has been observed by Wetmore, the lesser size is not an absolutely constant feature of this form, and some individuals from Argentina and Chile are hardly larger. Still, the difference holds in the majority of specimens. Adult males (thirty-four) from Peru (Cajamarca to Arequipa) have wings of 92 to 99, while an equal number from Chile and Argentina vary from 98 (four) to 105. Birds from

idem, l.c., 17, p. 472, 1930—Matucana, Lima, and Cullcui, Marañón River, Huánuco, Peru.

*Emberiza luctuosa* (not of Eydoux and Gervais) Lafresnaye and d'Orbigny, Syn. Av., in Mag. Zool., 7, cl. 2, p. 80, 1837—La Paz, Bolivia (spec. examined).

*Phrygilus fruticeti* (not *Fringilla fruticeti* Kittlitz) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 985—Chihuata and Arequipa, Peru; idem, l.c., 1868, p. 569—Arequipa; idem, l.c., 1869, p. 152—Tinta, Dept. Cuzco, Peru; Sclater, l.c., 1873, p. 780—Paucartambo, Peru; Taczanowski, l.c., 1874, p. 521—Huanta and Junín, Peru; Sclater and Salvin, l.c., 1874, p. 677—Paucartambo; idem, l.c., 1876, p. 16—Paucartambo; idem, l.c., 1879, p. 606—La Paz and Tilotilo, Bolivia; Sclater, l.c., 1881, p. 486—Cordillera above Lima (alt. 14,000 ft.); Allen, Bull. Mus. Comp. Zool., 3, p. 353, 1876—south end of Lake Titicaca; Taczanowski, Orn. Pér., 3, p. 37, 1886—Peru (Huanta, Junín, Paucartambo, Puno); Sharpe, Cat. Bds. Brit. Mus., 12, p. 790, 1888—part, spec. m-p, r, Peru (Andes of Lima, Arequipa, Chihuata) and Bolivia (Tilotilo); Bartlett, Monog. Weaver-Bds. & Finches, Part 3, pl. 1 (fig. of male), 1889—part, Bolivia (La Paz, Tilotilo) and Peru; Salvin, Nov. Zool., 2, p. 9, 1895—Cajamarca, Cajabamba, and Huamachuco, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 351—Chicla and Tarma, Junín, Peru; idem, Ornith., 13, pp. 69, 103, 1906—Coracora, Ayacucho, and Luatanay, Cuzco, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 112, 1921—La Raya, Cuzco, Pisac, and Huaracundo Canyon, Urubamba, Peru.

*Range*.—Temperate and Puna zones of Peru and northwestern Bolivia (Cordillera of La Paz).

33: Peru (Cajamarca, 8; Cullcui, Marañón River, Huánuco, 3; Macate, Ancachs, 15; Matucana, Lima, 7).

\**Phrygilus unicolor unicolor* (Lafresnaye and d'Orbigny).

CHILEAN PLUMBEOUS FINCH.

*Emberiza unicolor* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 79, 1837—"la Cordillère du Tacora (Pérou), pampa d'Oruro, Bolivie," we accept Tacora, Prov. Tacna, as type locality (type lost, formerly in Paris Museum).

*Sporophila concolor* Burmeister, Journ. Orn., 8, p. 257, 1860—near Mendoza (cf. idem, Reise La Plata St., 2, p. 488, 1861).

*Chlorospiza plumbea* Philippi and Landbeck, Arch. Naturg., 30, (1), p. 47, 1864—Cerro de San Cristóbal, Las Arañas, Valle Larga, "Yceba" [= Yerba] Loca, etc., Prov. Santiago, and Hacienda de la Puerta, Prov. Colchagua, Chile (type from Prov. Santiago, in Museo Nacional, Santiago de Chile;

La Paz, northern Bolivia, in size (wing, 95–98) and heavy streaking above, resemble those from Peru, while others from Oruro and Potosí are undoubtedly referable to typical *fruticeti*.

*Additional material examined*.—Peru: Surco, Lima, 5; Andes of Lima, 5; Matucana, 1; Baños, Cajamarca, 1; Queta, Tarma, Junín, 2; Chicla, Junín, 1; Luatanay, Cuzco, 1; Coracora, Ayacucho, 2; Arequipa, 2; Chihuata, Arequipa, 1. —Bolivia: La Paz, 8.

cf. Gigoux and Looser, Bol. Mus. Nac. Santiago, 13, p. 20, 1930); Landbeck, Anal. Univ. Chile, 24, p. 341, 1864—same localities; Philippi, l.c., 31, p. 265, 1868—Prov. Santiago; Landbeck, Zool. Garten, 18, p. 257, 1877—provinces of Santiago and Colchagua; Philippi, Anal. Mus. Nac. Santiago, 15, p. 59, pl. 25, figs. 1, 2, 1902—Chile.

*Phrygilus unicolor* Cassin, in Gilliss, U. S. Astron. Exp., 2, p. 180, 1855—mountains and “plains” of Chile; Sclater, Cat. Coll. Amer. Bds., p. 110, 1862—part, spec. f, g, Chile; idem, Proc. Zool. Soc. Lond., 1867, pp. 322, 337—Cordillera of Santiago (crit.); Reed, Anal. Univ. Chile, 49, p. 544, 1877—Cordillera of Colchagua; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 606—part, Pampa de Oruro, Bolivia (ex d’Orbigny); Sclater, l.c., 1886, p. 397—Huasco, Tarapacá, Chile; Sharpe, Cat. Bds. Brit. Mus., 12, p. 792, 1888—part, spec. a-h, Straits of Magellan, Chile (Santiago), Mendoza, and “Pampas Argentinas”; Sclater and Hudson, Arg. Orn., 1, p. 53, 1888—part, Mendoza; Reed, Anal. Univ. Chile, 93, p. 199, 1896—Chile; Lane, Ibis, 1897, p. 18—Huasco, Tarapacá; Schalow, Zool. Jahrb., Suppl., 4, p. 726, 1898—Punta Anegada, Tierra del Fuego; Salvadori, Ann. Mus. Civ. Stor. Nat. Genova, 40, p. 619, 1900—Punta Arenas, Rio Pescado, and Brunswick Peninsula, Straits of Magellan; Albert, Anal. Univ. Chile, 108, p. 218, 1901—Cordilleras of Chile (monog.); Arribáizaga, Anal. Mus. Nac. Buenos Aires, 8, p. 168, 1902—Lago General Paz, western Chubut; Dabbene, l.c., 18, p. 398, 1910—part, Straits of Magellan, Tierra del Fuego (Punta Anegada), Cordillera of Mendoza, and Chubut (Lago General Paz); idem, Bol. Soc. Physis, 1, p. 358, 1914—part, Mendoza and western Chubut (Lago General Paz); Barros, Rev. Chil. Hist. Nat., 25, p. 190, 1921—Cordillera of Aconcagua, Chile; Housse, l.c., 29, p. 147, 1925—San Bernardo, Santiago; Stone, Rep. Univ. Princet. Exp. Patag., 2, p. 844, 1928—part, Chile.

*Phrygilus rusticus* (not of Tschudi) Burmeister, Journ. Orn., 8, p. 255, 1860—Sierra de Mendoza (spec. in Halle Museum examined); idem, Reise La Plata St., 2, p. 487, 1861—near Mendoza.

*Phrygilus unicolor plumbeus*(a) Chapman, Amer. Mus. Novit., 160, p. 5, 1925—Chile (crit.); Wetmore, Univ. Calif. Pub. Zool., 24, pp. 460, 461, 1926—Arroyo Cumallo and Cerro Anecon Grande, Rio Negro, and Lago San Martín, Santa Cruz (crit.); Barros, Rev. Chil. Hist. Nat., 30, p. 139, 1926—Cordillera of Aconcagua, Chile.

*Phrygilus unicolor unicolor* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 60, 1932—Tacna to Straits of Magellan (crit.); Dabbene, Anal. Soc. Cient. Arg., 115, p. 313, 1933—Mendoza, Chubut, and Patagonia (monog.).

*Range.*—Temperate and Puna zones of extreme southwestern Peru (Prov. Tacna), the whole of Chile, and western Argentina, from the Sierra de Mendoza south to Tierra del Fuego and southeastern Patagonia (Terr. of Santa Cruz).<sup>1</sup>

<sup>1</sup> In “The Birds of Chile” (pp. 61–62, 1932) we have shown that *E. unicolor* strictly applies to the pale Chilean form named *C. plumbea* by Philippi and Landbeck, since topotypes from above Tacna agree in every detail with birds from Santiago and Aconcagua. A single adult male from Mendoza is an exact match

17: Peru (Choquelimpie, Tacna, 2); Chile (twenty miles east of San Pedro, Antofagasta, 11; Baños del Toro, Coquimbo, 3; Guardia Vieja, Aconcagua, 1).

**\*Phrygilus unicolor tucumanus** Chapman.<sup>1</sup> TUCUMÁN PLUMBEOUS FINCH.

*Phrygilus unicolor tucumanus* Chapman, Amer. Mus. Novit., **160**, p. 4, Feb., 1925—above Tafi del Valle, Tucumán (type in the American Museum of Natural History, New York); Dabbene, Anal. Soc. Cient. Arg., **115**, p. 315, 1933—Jujuy to Córdoba (monog.).

*Phrygilus unicolor* (not *Emberiza unicolor* Lafresnaye and d'Orbigny) Sclater, Cat. Coll. Amer. Bds., p. 110, 1862—part, spec. d, e, Bolivia; Cabanis, Journ. Orn., **26**, p. 195, 1878—Sierra de Achata, Córdoba; Sharpe, Cat. Bds. Brit. Mus., **12**, p. 792, 1888—part, spec. i-l, Bolivia; Sclater and Hudson, Arg. Orn., **1**, p. 53, 1888—part, Córdoba; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, **10**, p. 398, 1890—Sierra de Córdoba; Frenzel, Journ. Orn., **41**, p. 119, 1891—northern Sierra de Córdoba; Lillo, Anal. Mus. Nac. Buenos Aires, **8**, p. 180, 1902—Cuesta de Malamala and La Ciénaga, Tucumán; idem, Rev. Letr. Cienc. Soc., **3**, No. 13, p. 44, 1905—same localities; Dabbene, Anal. Mus. Nac. Buenos Aires, **18**, p. 398, 1910—part, Tucumán, Córdoba, and San Luis; idem, Bol. Soc. Physis, **1**, p. 358, 1914—part, same localities; Dinelli, El Hornero, **3**, p. 258, 1924—northwestern Argentina (nest and eggs descr.); Budin, l.c., **4**, p. 411, 1931—Sierra de Zenta, Jujuy.

*Phrygilus unicolor unicolor* Hartert and Venturi, Nov. Zool., **16**, p. 181, 1909—La Ciénaga, Tucumán.

*Range*.—Temperate and Puna zones of Bolivia and northwestern Argentina, from Jujuy and Salta south to the Sierra of Córdoba.

21: Argentina (Las Pavas, Tucumán, 21).

**\*Phrygilus unicolor inca** Zimmer.<sup>2</sup> PERUVIAN PLUMBEOUS FINCH.

for some of our Chilean birds. Specimens from the Straits of Magellan and Chubut appear to be slightly larger (wing of males, 95–97, against 91–94 in Chile).

*Additional material examined*.—Chile: Cordillera of Santiago, 1; Cajón del Rio Blanco, Aconcagua, 2; Valle de los Piuquenes, Aconcagua, 1; unspecified, 3.—Argentina: Sierra de Mendoza, 2; Valle del Lago Blanco, Chubut, 1.—Tierra del Fuego: Punta Anegada, 2.

<sup>1</sup> *Phrygilus unicolor tucumanus* Chapman: Very similar in the adult plumage to *P. u. unicolor*, but beneath slightly darker gray (approaching light neutral gray, especially anteriorly) with the anal region less whitish and the white edges to the tail coverts narrower; on the upper parts also somewhat darker, neutral gray rather than light neutral gray. The juvenile plumage is on average more broadly streaked on the under surface. Birds from Cochabamba, Bolivia, agree very well with those from Las Pavas, Tucumán. Wing (males), 89–94; tail, 61–70; bill, 10–11.

*Additional material examined*.—Bolivia, Dept. Cochabamba; near Cochabamba, 1; Mollemolle, 1; Caluya, 1; Colomi, 5; Incachaca, 1; Cerro San Benito, 3.

<sup>2</sup> *Phrygilus unicolor inca* Zimmer: Similar in adult plumage to *P. u. tucumanus*, but decidedly darker throughout, the upper parts varying from deep neutral gray to slate gray, the lower surface scarcely paler and lacking, at least in the male sex,



*Phrygilus unicolor inca* Zimmer, Proc. Biol. Soc. Wash., 42, p. 88, March, 1929—mountains near Huánuco, Peru (type in Field Museum); idem, Field Mus. Nat. Hist., Zool. Ser., 17, p. 473, 1930—La Quinua, Junín, and mountains near Huánuco, Peru.

*Phrygilus unicolor* (not *Emberiza unicolor* Lafresnaye and d'Orbigny) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 520—Maraynioc and Junín, Peru (eggs descr.); Sclater and Salvin, l.c., 1874, p. 677—"Paucartambo"—Cchachupata, Dept. Cuzco, Peru; Sharpe, Cat. Bds. Brit. Mus., 12, p. 792, 1888—part, spec. m, n, Junín and Ninarupa, Peru; Salvin, Nov. Zool., 2, p. 9, 1895—Cajamarca; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 351—Ingapirca and Maraynioc, Peru.

*Phrygilus unicolor unicolor* Chapman, Bull. U. S. Nat. Mus., 117, p. 113, 1921—Ocobamba Pass (above Ollantayambo) and above Matchu Picchu, Dept. Cuzco, Peru; Wetmore, Univ. Calif. Pub. Zool., 24, p. 460, 1926—Matchu Picchu, Peru (crit.).

*Phrygilus rusticus* (not of Tschudi) Taczanowski, Orn. Pér., 3, p. 38, 1886—Peru (Maraynioc, Junín, Cchachupata, Paucal).

**Range.**—Temperate and Puna zones of Peru and possibly north-western Bolivia (La Paz).

10: Peru (mountains east of Balsas, 2; mountains near Huánuco, 7; La Quinua, Junín, 1).

**\**Phrygilus unicolor grandis* Chapman.<sup>1</sup> ECUADORIAN PLUMBEOUS FINCH.**

*Phrygilus unicolor grandis* Chapman, Bull. Amer. Mus. N. H., 34, p. 651, 1915—Santa Isabel, central Andes, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 572, 1917—Santa Isabel; idem, l.c., 55, p. 627, 1926—Pichincha, above Chambo,

the whitish abdominal area as well as the white edges to the under tail coverts; juvenile plumage more heavily streaked with blackish both above and below, and with the sides of the head olivaceous (olive lake) instead of streaked with pale brown on a dingy whitish ground; size smaller. Wing, (males) 83–89, (female) 82–86; tail, 57–62, (female) 56–59; bill, 10–12.

As in *P. u. unicolor* and *P. u. tucumanus*, the sexes, when adult, are nearly alike in color, the females differing merely by slightly paler posterior under parts, dusky-streaked mantle, and suggestion of similar markings on sides of throat and chest. Certain individuals, however, are indistinguishable from the males. Birds in juvenile plumage are much more heavily streaked than the corresponding stage of the more southern representatives, these markings being also darker, blackish rather than dusky, and they have the sides of the head distinctly olivaceous. Birds from the southeastern border of Peru (Ollachea, Carabaya) agree in every particular with the type, some being even darker. The inhabitants of the La Paz region, Bolivia, need further investigation. According to notes made thirty years ago, a series from Iquico (Illimani) was found to be similar in size (wing of adult males, 85–89) and coloration to birds from Maraynioc, while one from the Sierra de Córdoba (*tucumanus*) is stated to be paler and larger (wing, 94 mm.).

**Additional material examined.**—Peru: Ingapirca, 2; Maraynioc, 2; Ollachea, twenty miles north of Macusani, Sierra of Carabaya, 6.

<sup>1</sup> *Phrygilus unicolor grandis* Chapman: Adult male similar to *P. u. inca*, but larger and coloration, especially below, much paler gray with whitish fringes to the under tail coverts; female apparently never gray, but heavily streaked with

Urbina, Chimborazo, Cochaseca, Taraguacocha, Bestion, Cerro Huamani, and above Oyacachi, Ecuador; Wetmore, Univ. Calif. Publ. Zool., **24**, p. 461, 1926—Páramo zone of Ecuador and central Andes of Colombia (crit.); Berlioz, Bull. Mus. Hist. Nat. Paris, **34**, p. 76, 1928—Cerro Mojanda, Ecuador.

*Phrygilus unicolor* Jardine, Contrib. Orn., 1849, p. 44, pl. 20—Andes of Quito, Ecuador; Selater, Proc. Zool. Soc. Lond., **28**, p. 76, 1860—Panza and Gugua, Pichincha, Ecuador; idem, Cat. Coll. Amer. Bds., p. 110, 1862—part, spec. a-c, Panza, Ecuador; Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 85—San Rafael and Chimborazo, Ecuador; Sharpe, Cat. Bds. Brit. Mus., **12**, p. 792, 1888—part, spec. o-v, Ecuador (Panza, Quito, Sicla); Salvadori and Festa, Boll. Mus. Zool. Torino, **14**, No. 357, p. 25, 1899—Quinoas (Cuenca), Paredones (Páramos del Azuay), Chaupi (Illiniza), Pichincha, and Vallevicioso (Cotopaxi), Ecuador; Goodfellow, Ibis, 1901, p. 474—El Egido (north of Quito) and Aloag (above Machachi), Ecuador; Rhoads, Auk, **29**, p. 142, 1912—Páramo of Pichincha; Lönnberg and Rendahl, Ark. Zool., **14**, No. 25, p. 79, 1922—Pichincha.

*Phrygilus unicolor unicolor* Ménégaux, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., **9**, p. B80, 1911—Mozo, Pichincha, and Pichan, Ecuador.

*Range*.—Páramo zone of Ecuador and central Andes of Colombia (Santa Isabel).

3: Ecuador (Antisana, 1; Pichincha, 2).

**\*Phrygilus unicolor nivarius** (Bangs).<sup>1</sup> SANTA MARTA PLUMBEOUS FINCH.

*Haplospiza nivaria* Bangs, Proc. Biol. Soc. Wash., **13**, p. 102, 1899—Páramo de Chiruqua, Santa Marta Mts., Colombia (type in coll. of E. A. and O.

dusky above and below, thus closely resembling the juvenile plumage of the southern races (*unicolor*, *tucumanus*, *inca*). Wing (male), 90–95; tail, 64–70; bill, 11–12.

This form, in the male sex, is remarkably similar to *P. u. unicolor* and differs merely by slightly darker under parts with less white on the tail coverts. Judging from the few examples at hand, the female, however, is quite different, and like the same sex of the two Colombian races, apparently never assumes an entirely gray, almost unstreaked plumage, but retains a dress very similar to the juvenile livery of *unicolor* and *tucumanus*.

*Additional material examined*.—Colombia: Santa Isabel, central Andes, 2.—Ecuador: Pichincha, 4; Tortorillas, Chimborazo, 1; Chimborazo, 3; Guallabamba, Riobamba, 1; Páramos southeast of Riobamba, 1; Cañar, 1.

<sup>1</sup> *Phrygilus unicolor nivarius* (Bangs): Similar in coloration to *P. u. grandis*, but smaller. Wing, (male) 80–84, (female) 77–81; tail, 60–64, (female) 55–61; bill, 10–11.

In this form, the female appears to be always striped, this assumption being corroborated by Mr. Todd's remark on a large series of birds from the Santa Marta region. *H. montosa*, from the Cordillera of Mérida, I cannot distinguish from birds of the latter district. Males in gray plumage are perfectly alike, while of five females only two are more boldly streaked underneath.

*Additional material examined*.—Colombia: Sierra Nevada de Santa Marta, 6; Páramo de Chiruqua, 2.—Venezuela, Mérida: Quintero, 4; San Antonio, 5; Culata, 2; Conejos, 1; Escorial, 1.

Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 390, 1930); Allen, Bull. Amer. Mus. N. H., **13**, pp. 121, 164, 1900—Páramo de Chiriqua and Sierra Nevada de Santa Marta.

*Haplospiza montosa* Riley, Proc. Biol. Soc. Wash., **18**, p. 220, 1905—San Antonio, Andes of Mérida, Venezuela (type in U. S. National Museum).

*Phrygilus unicolor* (not *Emberiza unicolor* Lafresnaye and d'Orbigny) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, pp. 781, 785—Páramos of Mérida, Venezuela (crit.); Wyatt, Ibis, 1871, pp. 128, 328—Páramo de Pamplona, above Vetás, Santander, Colombia; Salvin and Godman, Ibis, 1880, p. 122—Sierra Nevada de Santa Marta, Colombia; Sharpe, Cat. Bds. Brit. Mus., **12**, p. 792, 1888—part, spec. a'-f', h', i', Sierra Nevada of Santa Marta and Mérida, Venezuela.

*Phrygilus unicolor nivarius* Chapman, Bull. Amer. Mus. N. H., **34**, p. 652, 1915—Santa Marta Mountains and Andes of Mérida, Venezuela (crit.); Todd and Carriker, Ann. Carnegie Mus., **14**, p. 521, 1922—Cerro de Caracas, Páramo de Mamarongo, and Páramo de Chiriqua, Colombia (habits); Wetmore, Univ. Calif. Pub. Zool., **24**, p. 460, 1926—Santa Marta Mountains (crit.).

*Phrygilus unicolor montosus* Wetmore, Univ. Calif. Pub. Zool., **24**, p. 460, 1926—Venezuela (crit.).

*Range*.—Páramo zone of northeastern Colombia (Santa Marta region and Andes of Santander) and the adjacent parts of Venezuela (Cordillera of Mérida).

7: Colombia (Páramo de Guerrero, Santander del Norte, 2); Venezuela (Escorial, Mérida, 1; Montaña Sierra, Mérida, 1; Páramo Frias, Mérida, 2; Culata, Mérida, 1).

**\**Phrygilus unicolor geospizopsis* (Bonaparte).<sup>1</sup> BOGOTÁ PLUMBEOUS FINCH.**

*Passerculus geospizopsis* Bonaparte, Compt. Rend. Acad. Sci. Paris, **37**, No. 25, p. 921, Dec., 1853—Colombia (type in coll. of E. and J. Verreaux, present location unknown;<sup>2</sup> descr. of female); Sclater, Proc. Zool. Soc. Lond., **24**, p. 306 (in text), 1856 (crit.).

*Geospizopsis typus* Bonaparte, Compt. Rend. Acad. Sci. Paris, **42**, p. 955, 1856—new name for *Passerculus geospizopsis* Bonaparte.

<sup>1</sup> *Phrygilus unicolor geospizopsis* (Bonaparte): Male, according to Chapman, distinguished from *P. u. grandis* by smaller size; female differing from both *P. u. grandis* and *P. u. nivarius*, by olive-buff instead of grayish or buffy auriculars and olive-buff suffusion on chin and throat. Wing, (two adult males) 90, 94, (female) 84; tail, 64, 69, (female) 60; bill, 11–12.

The only two adult males I have been able to examine do not differ either in size or coloration from the average Ecuadorian birds. A single female has the auriculars indeed olivaceous, and a distinct, though faint olive-buffy hue on the upper throat. I must confess that the distinctness of this form from *P. u. grandis* appears to me to require further substantiation.

*Material examined*.—Colombia: "Bogotá," 4.

<sup>2</sup> The type is neither at Paris nor in the British Museum.

*Phrygilus geospizopsis* Sclater, Proc. Zool. Soc. Lond., 23, p. 160, 1855—Bogotá; idem, Cat. Coll. Amer. Bds., p. 110, 1862—Bogotá.

*Phrygilus unicolor geospizopsis* Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—vicinity of Bogotá; Chapman, Bull. Amer. Mus. N. H., 34, p. 652, 1915—Páramo de Choachi, near Bogotá (crit.); idem, l.c., 37, p. 572, 1917—Páramo de Choachi; Wetmore, Univ. Calif. Pub. Zool., 24, p. 461, 1926—Páramo zone of eastern Colombia.

*Phrygilus unicolor* (not *Emberiza unicolor* Lafresnaye and d'Orbigny) Sharpe, Cat. Bds. Brit. Mus., 12, p. 792, 1888—part, spec. w-z, Bogotá.

*Range*.—Páramo zone of the eastern Andes of Colombia (Bogotá region).

1: Colombia (Bogotá, 1).

**\*Phrygilus dorsalis** Cabanis. RED-BACKED FINCH.

*Phrygilus dorsalis* Cabanis, Journ. Orn., 31, p. 109, 1883—Cerro "Vayo" [= Bayo], near the snow-line, Prov. Tucumán (type in Berlin Museum examined); Sclater and Hudson, Arg. Orn., 1, p. 53, 1888—Cerro Bayo; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 70, 1932—Silala, Antofagasta-Bolivia boundary (crit., range, meas.); Dabbene, Anal. Soc. Cient. Arg., 115, p. 317, 1933—Sierra del Cajón, Salta, and Laguna Blanca, Catamarca (monog.).

*Phrygilus erythronotus* (not *Chlorospiza erythronota* Philippi and Landbeck) Sharpe, Cat. Bds. Brit. Mus., 12, p. 796, 1888—Cerro "Voyo" [= Bayo], Tucumán; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 180, 1902—Cerro Bayo (ex Cabanis); Baer, Ornith., 12, p. 218, 1904—Cerro Pelado, Tucumán; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 45, 1905—Cerro Bayo; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 399, 1910—Cerro Bayo.

*Phrygilus erythronota* Hartert and Venturi, Nov. Zool., 16, p. 181, 1909—Cerro Muñoz and Laguna Alta, Tucumán (spec. examined).

*Range*.—Puna zone of northwestern Argentina, in provinces of Catamarca, Tucumán, Salta, and Jujuy, and adjacent section of extreme southwestern Bolivia (Silala, Dept. Potosí, on the Antofagasta boundary).<sup>1</sup>

3: Bolivia (Silala, on Chile-Bolivia border, 2); Argentina (Maimará, Jujuy, 1).

**\*Phrygilus erythronotus** (Philippi and Landbeck).<sup>2</sup> BEHN'S FINCH.

<sup>1</sup> Two males from Silala (Chile-Bolivia boundary) are identical with others from Argentina. The sexes, in this species, are alike, both having an extensive area on the back, including the scapulars, plain pecan brown.

*Additional specimens examined*.—Argentina, Tucumán: Cerro de Bayo, 1 (the type); Cerro Muñoz, 3; Cerro Pelado, 2; Cumbre de Calchaquiles, 1; Laguna Alta, 1.

<sup>2</sup> *Phrygilus erythronotus* (Philippi and Landbeck): Adult similar to *P. dorsalis*, but above from head to tail coverts slate gray without any trace of the pecan brown dorsal area, only the outer margins to the tertials being in fresh plumage pale

*Chlorospiza erythronota* Philippi and Landbeck, Anal. Univ. Chile, 19, p. 610, 1861—Putre or "Parunicota" [=Parinacota], Prov. Tacna, Peru (descr. of immature; type in Museo Nacional, Santiago);<sup>1</sup> idem, Arch. Naturg., 29, (1), p. 121, 1863—same locality.

*Sycalis erythronota* Sclater, Ibis, 1872, p. 48 (ex Philippi and Landbeck); Taczanowski, Orn. Pér., 3, p. 62, 1886 (ex Philippi and Landbeck).

*Diuca behni* Reichenow, Orn. Monatsber., 15, p. 201, 1907—Potosí, Bolivia (descr. of adult male; type in Berlin Museum examined); Ménégau, Bull. Soc. Philom. Paris, (10), 1, p. 210, 1909—Pulacayo, Oruro, Bolivia (spec. in Paris Museum examined).

*Phrygilus erythronotus* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 67, 1932—Peru (Choquelimpie and Las Cuevas, near Putre, Dept. Tacna) and Bolivia (Pulacayo, Oruro; Potosí and Cordillera de Livichuco, Potosí) (crit., plumages, meas.).

*Range*.—Puna zone of extreme southern Peru (Dept. Tacna) and Bolivia (in depts. of Oruro and Potosí).

4: Peru (Choquelimpie, Tacna, 3; Las Cuevas, near Putre, Tacna, 1).

**\*Phrygilus plebejus plebejus** Tschudi. ASH-BREASTED FINCH.

*Phrygilus plebejus* Tschudi, Arch. Naturg., 10, (1), p. 289, 1844—"Peru" = probably Junín highlands (type in Neuchâtel Museum); idem, Unters. Faun. Peru., Orn., p. 219, pl. 19, fig. 1, 1846—Peru; Bonaparte, Consp. Gen. Av., 1, (2), p. 476, 1850—Peru (diag.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 568—Arequipa, Peru; idem, l.c., 1869, p. 152—Tinta, Dept. Cuzco, Peru; Sclater, l.c., 1886, p. 397—Huasco, Sitani, and "Lalcalhuay," Tarapacá, Chile; Taczanowski, Orn. Pér., 3, p. 39, 1886—Peru (Huanta, Tarma, Palcamayo, Junín, Chota, Chachapoyas, Arequipa); Sharpe, Cat. Bds. Brit. Mus., 12, p. 795, 1888—Mendoza, Tarapacá, and Peru ("Lima," Arequipa, Tinta); Salvin, Nov. Zool., 2, p. 10, 1895—

wood brown. The immature plumage differs by somewhat duller, more brownish gray, dusky-streaked pileum and hind neck; dingier (brownish gray rather than light neutral gray) pectoral band and sides of the head; deeper buff flanks and under tail coverts; wider and brighter (avellaneous) edges to the inner secondaries; and especially by having the back and scapulars wood-brown, each feather being largely centered with dusky. Wing (males), 97, 101 (Tacna), 104 (Pulacayo), 107–111 (Potosí); tail, 67, 71 (Tacna), 78 (Pulacayo), 74–79 (Potosí); bill, 11  $\frac{3}{4}$ –13.

As has been pointed out in "The Birds of Chile" (pp. 67–69), *Chlorospiza erythronota* was obviously based on the immature plumage of the present species. Topotypes from the Putre region correspond well to the original description and were, furthermore, compared by Mr. K. P. Schmidt in the Chilean National Museum. The adult birds are what Reichenow described as *Diuca behni*. Bolivian specimens are slightly larger, but the variation is rather insignificant and will doubtless disappear in a fuller series.

*Additional material examined*.—Bolivia: Pulacayo, Oruro, 2; Potosí, 4; Cordillera de Livichuco, Potosí, 3.

<sup>1</sup> Gigoux and Looser (Bol. Mus. Nac. Santiago, 13, p. 20, 1930) state that they have failed to find the type in the National Museum at Santiago; but, as recorded in "The Birds of Chile" (p. 68), No. 458 of that collection is almost certainly the individual which formed the basis to Philippi and Landbeck's description.

Cajamarca and Huamachuco, Peru; Reed, Anal. Univ. Chile, **93**, p. 200, 1896—Tarapacá, Chile; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 351—Ingapirca and Maraynioc, Dept. Junín, Peru; Albert, Anal. Univ. Chile, **108**, p. 222, 1901—Tarapacá and Tacna, Chile (monog.); Lillo, Anal. Mus. Nac. Buenos Aires, **8**, p. 180, 1902—Taff, Tucumán; Lönnberg, Ibis, 1903, p. 452—Moreno, Jujuy (eggs descr.); Baer, Ornith., **12**, p. 217, 1904—Lara, Tucumán; Bruch, Rev. Mus. La Plata, **11**, p. 258, 1904—Incahuasi, Salta; Lillo, Rev. Letr. y Cienc. Soc., **3**, No. 13, p. 45, 1905—Taff, Tucumán; Berlepsch and Stolzmann, Ornith., **13**, p. 127, 1906—Puno, Peru; Ménégau, Bull. Soc. Philom. Paris, (10), **1**, p. 211, 1909—Chepepe Pazña, Oruro, Bolivia; Dabbene, Anal. Mus. Nac. Buenos Aires, **18**, p. 399, 1910—Sierra de Tucumán, Salta, and Jujuy (Moreno); Chapman, Bull. U. S. Nat. Mus., **117**, p. 113, 1921—La Raya, Pisac, Cuzco, and Ocobamba Pass, Dept. Cuzco, Peru; Pereyra, El Hornero, **4**, p. 33, 1927—San Rafael, Mendoza; Budin, l.c., **4**, p. 411, 1931—Sierra de Zenta, Jujuy.

*Phrygilus plebejus plebejus* Zimmer, Field Mus. Nat. Hist., Zool. Ser., **17**, p. 474, 1930—Matucana, La Quinua, mountains near Huánuco, and Huánuco Viejo, Peru; Hellmayr, l.c., **19**, p. 64, 1932—twenty miles east of San Pedro, Antofagasta, Chile; Dabbene, Anal. Soc. Cient. Arg., **115**, p. 311, 1933—San Antonio de los Cobres, Los Andes (monog.).

*Phrygilus ocularis* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 520—Huanta and Junín, Peru; idem, l.c., 1879, p. 229—Chota, Peru; idem, l.c., 1882, p. 17—Chachapoyas, Peru.

**Range.**—Puna zone of Peru (excepting the extreme northwest), Bolivia, extreme northern Chile (south to Antofagasta), and northwestern Argentina (from Jujuy south to Mendoza).<sup>1</sup>

27: Peru (mountains near Otuzco, 2; Cajamarca, 3; Macate, Ancachs, 5; Matucana, 1; La Quinua, 2; Junín, 2; Huánuco Mountains, 2; Huánuco Viejo, 2; Puno, 3); Chile (San Pedro, Antofagasta, 2); Argentina (Maimará, Jujuy, 2; Laguna Blanca, Catamarca, 1).

### ***Phrygilus plebejus ocularis* Sclater.<sup>2</sup> ECUADORIAN ASH-BREASTED FINCH.**

*Phrygilus ocularis* Sclater, Proc. Zool. Soc. Lond., **26**, p. 454, pl. 145, 1858—Cuenca, Ecuador (type in coll. of P. L. Sclater, now in British Museum); idem, l.c., **26**, p. 552, 1858—Riobamba, Ecuador; idem, l.c., **28**, p. 87,

<sup>1</sup> Birds from Argentina, Chile, and the southern parts of Peru agree together, while specimens from Cajamarca possibly average slightly smaller.

**Additional material examined.**—Peru: Cajamarca, 30; Lauramarca, Cuzco, 1; Anta, Cuzco, 2.—Bolivia: La Paz, 1.

<sup>2</sup> *Phrygilus plebejus ocularis* Sclater merely differs from the nominate race by its decidedly smaller size. No constant color differences exist, although a good many Ecuadorian specimens are somewhat whiter beneath.

We have not seen any material from Piura referred by Bangs and Noble to the Ecuadorian race. We venture to question the correctness of the locality "Lechugal" based on an example in the Raimondi Collection.

Eighteen specimens from the Temperate zone of Ecuador examined.

1860—Calacali, near Quito; idem, Cat. Coll. Amer. Bds., p. 111, 1862—Cuenca; Taczanowski, Orn. Pér., 3, p. 40, 1886—"Lechugal," Tumbes, Peru (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 796, 1888—Ecuador (Cuenca, Sical); Hartert, Nov. Zool., 5, p. 485, 1898—Cayambé, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 26, 1899—Tambo de Quinoas (Cuenca), Sigsig, Cuenca, Cañar, La Concepción (Chota), "Nanegal," Tumbaco, and Chillo Valley, Ecuador; Goodfellow, Ibis, 1901, p. 474—near Quito and Chillo Valley, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B81, 1911—Tumbaco, Ecuador; Bangs and Noble, Auk, 35, p. 462, 1918—Sullana and Huancabamba, Piura, Peru; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 76, 1928—Volcan de Tumbaco, Ecuador.

*Phrygilus plebeius* (not of Tschudi) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 294—Alausi, Ecuador.

*Phrygilus plebeius ocularis* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 80, 1922—Tumbaco, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 628, 1926—Guallabamba Canyon, Tumbaco, Cumbaya, Bestion, Mocha, Chimborazo, Casanga, Lunamá, and Loja, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 627, 1932—Cuenca, Ecuador.

*Range*.—Temperate zone of Ecuador and extreme northwestern Peru ("Lechugal," Tumbes; Sullana and Huancabamba, Piura).

**\**Phrygilus alaudinus alaudinus* (Kittlitz). CHILEAN LARK-LIKE FINCH.**

*Fringilla alaudina* Kittlitz, Kupfert. Naturg. Vög., Part 2, p. 18, pl. 23, fig. 2, 1832—Chile=Valparaíso (type in Leningrad Museum; cf. Chrostowski, Ann. Zool. Mus. Pol. Hist. Nat., 1, p. 20, 1921); Darwin, Zool. Beagle, 3, Birds, p. 94, 1839—Valparaíso; Fraser, Proc. Zool. Soc. Lond., 11, p. 112, 1843—Chile (breeding habits); Kittlitz, Denkw. Reise, 1, pp. 135, 178, 1858—Valparaíso and Quillota, Chile.

*Emberiza guttata* Meyen, Nov. Act. Acad. Leop. Carol., 16, Suppl., p. 85, pl. 12, fig. 1, 1834—Santiago, Chile (type in Berlin Museum).

*Fringilla* (*Niphaea*) *laciniata* Peale, U. S. Expl. Exp., 8, p. 121, 1848—Valparaíso, Chile (type in U. S. National Museum).

*Chlorospiza alaudina* Des Murs, in Gay, Hist. Fís. Pol. Chile, Zool., 1, p. 357, 1847—Chile; Germain, Proc. Bost. Soc. N. H., 7, p. 312, 1860—Santiago (breeding habits); Philippi, Anal. Univ. Chile, 31, p. 265, 1868—central provinces of Chile; Landbeck, Zool. Garten, 18, p. 257, 1877—sea coast mountains at Llico, Curicó; Reed, Anal. Univ. Chile, 49, p. 544, 1877—Cauquenes, Colchagua; Lataste, Act. Soc. Scient. Chili, 3, p. cxv, 1893—Ninhue, Maule; Waugh and Lataste, l.c., 4, p. clxxii, 1894—San Alfonso, Quillota; Lataste, l.c., 5, pp. xxxiv, lxii, 1895—Cerro de las Lajuelas, Curicó, and Llohue, Maule; Gigoux, Rev. Chil. Hist. Nat., 28, p. 86, 1924—Caldera, Atacama.

*Phrygilus alaudina* Bonaparte, Consp. Gen. Av., 1, (2), p. 476, 1850—Chile.

*Phrygilus alaudinus* Cabanis, Mus. Hein., 1, p. 135, 1851—Chile; Sclater, Cat. Coll. Amer. Bds., p. 111, 1862—part, spec. c, d, Chile; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 93, 1865—Chile; Sclater, Proc. Zool. Soc. Lond.,

1867, pp. 322, 337—Chile; Salvin, l.c., 1883, p. 421—Coquimbo; Sharpe, Cat. Bds. Brit. Mus., 12, p. 793, 1888—spec. a-g, s, t, Chile (Coquimbo, Valparaíso); Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—Valparaíso; Bartlett, Monog. Weaver-Birds and Finches, Part 3, pl. 2, 1889—part, spec. h-s, v, w, Chile (Santiago); Reed, Anal. Univ. Chile, 93, p. 200, 1896—Chile; Lane, Ibis, 1897, p. 18—Viña del Mar (Valparaíso) and Coronel (Arauco); Albert, Anal. Univ. Chil., 108, p. 220, 1901—Chile (monog.); Barros, Rev. Chil. Hist. Nat., 24, p. 149, 1920—Nilahue, Curicó; idem, l.c., 25, p. 190, 1921—Cordillera of Aconcagua; Housse, l.c., 29, p. 148, 1925—San Bernardo, Santiago; Jaffuel and Pirion, l.c., 31, p. 110, 1927—Marga-Marga, Valparaíso; Bullock, l.c., 33, p. 190, 1929—Angol, Malleco.

*Phrygilus alaudinus alaudinus* Wetmore, Bull. U. S. Nat. Mus., 133, p. 407, 1926—Concon, Valparaíso; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 62, 1932—Atacama to Curicó (crit., range).

*Range*.—Temperate zone of Chile, from Atacama to Cautín.<sup>1</sup>

12: Chile (Ramadilla, Atacama, 1; Domeyko, Atacama, 2; La Compañía, Coquimbo, 1; Tambillos, Coquimbo, 1; Romero, Coquimbo, 1; Paiguano, Coquimbo, 3; Olmué, Valparaíso, 1; Rio Lolen, Lonquimai Valley, Cautín, 1; unspecified, 1).

### ***Phrygilus alaudinus venturii* Hartert.<sup>2</sup> VENTURI'S LARK-LIKE FINCH.**

*Phrygilus alaudinus venturii* Hartert, in Hartert and Venturi, Nov. Zool., 16, p. 180, 1909—Lagunita, Tucumán, Argentina (type in Tring Collection, now in the American Museum of Natural History, New York); Wetmore, Bull. U. S. Nat. Mus., 133, p. 407, 1926—Sierra San Xavier, above Taff Viejo, Tucumán (crit.).

*Phrygilus alaudinus* (not *Fringilla alaudina* Kittlitz) Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Sierra de Córdoba; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 180, 1902—Taff, Tucumán; Baer, Ornith., 12, p. 217, 1904—Lara, Tucumán; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 45, 1905—Taff; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 399, 1910—Sierra de Córdoba and Taff, Tucumán.

*Corydospiza alaudina venturii* Dabbene, Anal. Soc. Cient. Arg., 115, p. 319, 1933—Jujuy (La Quiaca, Volcán), Tucumán (Sierra del Cajón, Aconquija), and Córdoba (Potrero de Moyano, Valle de los Reartes); Castellanos, El Hornero, 5, p. 326, 1934—Valle de los Reartes, Córdoba.

*Range*.—Temperate zone of northwestern Argentina, from Jujuy to the Sierra de Córdoba.

<sup>1</sup> Ten additional specimens from Chile examined.

<sup>2</sup> *Phrygilus alaudinus venturii* Hartert: Very similar to, and agreeing with, *P. a. excelsus* in proportions of wing and tail, but bill larger and gray of chest in males paler, approaching that of *P. a. alaudinus*. Wing (males), 80–84; tail, 64–68; bill, 13½–15.

*Material examined*.—Argentina, Tucumán: Lagunita, 2; Taff del Valle, 2; Las Ciénagas, 2.



**\*Phrygilus alaudinus excelsus** Berlepsch.<sup>1</sup> BOLIVIAN LARK-LIKE FINCH.

*Phrygilus alaudinus excelsus* Berlepsch and Stolzmann, Ornith., 13, p. 127, 1906—Puno, Peru (nom. nudum); Berlepsch, Ornith., 14, p. 351, Feb., 1907—Vacas, Dept. Cochabamba, Bolivia (type in coll. of H. von Berlepsch, now in Senckenberg Museum, Frankfurt); Chapman, Bull. U. S. Nat. Mus., 117, p. 113, 1921—La Raya and Tirapata, Dept. Puno, Peru.

*Emberiza guttata* (not of Meyen) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 78, 1837—Sicasica, Bolivia.

**Range.**—Temperate zone of extreme southern Peru (Puno, La Raya, and Tirapata, Dept. Puno) and Bolivia (Sicasica, La Paz; Vacas and Parotani, Cochabamba).

6: Peru (Puno, 2); Bolivia (Parotani, Cochabamba, 4).

**\*Phrygilus alaudinus bipartitus** Zimmer.<sup>2</sup> PERUVIAN LARK-LIKE FINCH.

*Phrygilus alaudinus bipartitus* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 12, p. 61, April, 1924—Cajamarca, Peru (type in Field Museum); Chapman, Bull. Amer. Mus. N. H., 55, p. 627, 1926—Santa Elena, Lloa, Tumbaco, Chimborazo, and El Paso, Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 474, 1930—Vitarte and Matucana, Lima, and Huánuco, Peru.

*Passerina guttata* (not *Emberiza guttata* Meyen) Eyndoux and Gervais, Mag. Zool., 6, cl. 2, p. 22, pl. 70, 1836—"Bolivia."<sup>3</sup>

*Phrygilus alaudinus* (not *Fringilla alaudina* Kittlitz) Selater, Proc. Zool. Soc. Lond., 26, p. 552, 1858—above Punín, Ecuador; idem, l.c., 28, p. 87, 1860—Calacali, Ecuador; idem, Cat. Coll. Amer. Bds., p. 111, 1862—part, spec. a, b, above Punín and Riobamba, Ecuador; Selater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 985—Islay and Arequipa, Peru;

<sup>1</sup> *Phrygilus alaudinus excelsus* Berlepsch: Similar to *P. a. alaudinus*, but conspicuously larger; the gray on the anterior under parts of the males darker (slate gray to slate color instead of deep gull gray to dark gull gray) and paling gradually into grayish white (not pure white) on the abdomen; flanks without any buffy tinge. Wing (males), 82–90; tail, 67–72; bill, 12–13.

Birds from Puno and Tirapata, Peru, agree with the Bolivian ones, but seem to be slightly smaller.

**Additional material examined.**—Peru: Puno, 1; Tirapata, 2.—Bolivia: La Paz, 1; Vacas, Cochabamba, 1; Cosmini, Cochabamba, 2; Caracollo, Cochabamba, 1.

<sup>2</sup> *Phrygilus alaudinus bipartitus* Zimmer: Nearest to *P. a. excelsus*, but smaller, and in the male sex easily distinguished by having the throat and chest decidedly darker gray, sometimes blackish on the chin, this area being abruptly defined against the clear white of the posterior under parts. Wing (males), 72–78; tail, 54–60; bill, 12–13.

A single adult male from Ecuador appears to be similar to a Peruvian series. Three males from southwestern Peru (Islay and Huanta) are likewise typical.

**Additional material examined.**—Peru: Lima, 18; Surco, Lima, 2; Caraz, Ancachs, 2; Cajabamba, 2; Malca, 2; Succha, Huamachuco, 3; Huanta, Ayacucho, 1; Arequipa, 2; Islay, Arequipa, 3.

<sup>3</sup> The plate is a good representation of the present form, although the habitat is given as "Bolivia."

idem, l.c., 1868, p. 568—near Arequipa (nest descr.); Sclater, l.c., 1871, p. 496—a few miles from Lima; Taczanowski, l.c., 1874, p. 521—Lima and Huanta (Ayacucho); Berlepsch and Taczanowski, l.c., 1884, p. 294—Cechce, Ecuador; idem, l.c., 1885, p. 85—Chimborazo, Ecuador; Taczanowski, Orn. Pér., 3, p. 35, 1886—Peru (Lima, Paucal); Sharpe, Cat. Bds. Brit. Mus., 12, p. 793, 1888—part, spec. h, Lima, and i, Islay; Bartlett, Monog. Weaver-Bds. & Finches, Part 3, pl. 2, 1889—part, Peru (spec. a-g, Arequipa and “Tinta”); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 377—Lima and Ica, Peru; Salvin, Nov. Zool., 2, p. 9, 1895—Malca, Cajabamba, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 351—Tarma and Jauja, Dept. Junín, Peru; Hartert, Nov. Zool., 5, p. 485, 1898—Cayambé, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 25, 1899—Cañar, La Concepción (Chota Valley), and Tumbaco, Ecuador; Goodfellow, Ibis, 1901, p. 454—around Quito and Chillo Valley, Ecuador; Berlepsch and Stolzmann, Orn. 13, p. 69, 1906—Coracora, Ayacucho, Peru (crit.); Bangs and Noble, Auk, 35, p. 462, 1918—Huanca-bamba, Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 80, 1922—Quito and Chaupicruz, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 76, 1928—Volcan de Tumbaco, Ecuador.

*Range*.—Temperate zone of western Ecuador and of the western parts of Peru south to Lima, Junín, Ayacucho, and Arequipa.

17: Peru (Cajamarca, 4; Milluachaqui, 2; Huánuco, 4; Matucana, 3; Vitarte, 1; Macate, Ancachs, 3).

***Phrygilus carbonarius* (Lafresnaye and d'Orbigny). BLACKISH FINCH.**

*Emberiza carbonaria* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 79, 1837—“in Patagonia”=Rio Negro (descr. of adult male; type lost!); d'Orbigny, Voy. Amér. Mérid., 4, Ois., p. 361, pl. 45, fig. 2 (male), 1844—Rio Negro, Patagonia.

*Fringilla carbonaria* Darwin, Zool. Beagle, 3, Birds, p. 94, 1839—desert plains between the rivers Negro and Colorado, Patagonia.

*Phrygilus carbonaria* Bonaparte, Consp. Gen. Av., 1, (2), p. 476, 1850—Patagonia; Hartert and Venturi, Nov. Zool., 16, p. 181, 1909—Roca, Rio Negro.

*Phrygilus carbonarius* Burmeister, Journ. Orn., 8, p. 255, 1860—Sierra de Mendoza (spec. in Halle Museum examined); idem, Reise La Plata St., 2, p. 487, 1861—Sierra de Uspallata, Mendoza; Doering, in Roca, Inf. Of. Exp. Rio Negro, p. 38, 1881—Laguna de Marra-Có, Rio Negro, and Rio Colorado; Sclater and Hudson, Arg. Orn., 1, p. 54, 1888—Sierra de Uspallata (Mendoza), Rio Negro, and Rio Colorado; Sharpe, Cat. Bds. Brit. Mus., 12, p. 791, 1888—Sierra de Uspallata, Mendoza; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Córdoba; Oustalet, Miss. Sci. Cap Horn, 6, p. B281, 1891 (range);

<sup>1</sup> The type is not to be found in the collections at Paris nor is it inscribed in the Museum registers.

Holland, Ibis, 1897, p. 166—Santa Elena, Buenos Aires (Oct. 13, 1895; spec. in British Museum examined); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 180, 1902—Rio Salí, Tucumán; idem, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 44, 1905—Rio Salí; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 398, 1910 (range in Argentina); Reed, Av. Prov. Mendoza, p. 46, 1916—Precordillera of Mendoza; Sanzin, El Hornero, 1, p. 152, 1918—Chacras Coria, Mendoza; Giacomelli, l.c., 3, p. 69, 1923—La Rioja (rare); Wetmore, Bull. U. S. Nat. Mus., 133, p. 407, 1926—near Bahía Blanca, Buenos Aires, and Victorica, Pampa; idem, Univ. Calif. Pub. Zool., 24, p. 460, 1926—Nahuel Niyeu, Rio Negro; Stone, Rep. Princet. Univ. Exp. Patag., 2, p. 842, 1928—Bahía Blanca, Buenos Aires (descr. of male and female).

*Corydospiza carbonaria* Dabbene, Anal. Soc. Cient. Arg., 115, p. 322, 1933—Buenos Aires (Rosas, Sancti Spiritus), Pampa (Conhella), Córdoba (La Primavera), and Rio Negro (monog.).

*Range*.—Central Argentina, from the Rio Negro north to western Buenos Aires (Santa Elena), Tucumán (Rio Salí), and La Rioja, and west to Mendoza (Chacras Coria; Sierra de Uspallata).<sup>1</sup>

### Genus MELANODERA Bonaparte<sup>2</sup>

*Melanodera* Bonaparte, Consp. Gen. Av., 1, (2), p. 470, 1850—type, by tautonymy, *Emberiza melanodera* Quoy and Gaimard.

### \**Melanodera melanodera melanodera* (Quoy and Gaimard).<sup>3</sup> BLACK-THROATED FINCH.

<sup>1</sup> Nothing is known about the breeding range of this species, which, in structural details as well as in yellow bill and feet, resembles *P. alaudinus*, type of the subgenus *Corydospiza*, but differs by the black under parts and the absence of the white band across the inner web of the rectrices, not to mention various minor characters. The female was, for the first time, described by Stone, and a specimen from Bahía Blanca answers perfectly to his description, the white external edge to the otherwise blackish outermost rectrix being quite pronounced. A single male, obtained by A. H. Holland at Santa Elena, Buenos Aires, on October 13, 1895, is in non-breeding livery, with pale brown, dusky-streaked upper parts, and wide, pale gray apical margins on the ventral surface. Birds secured by Burmeister in June near Mendoza are in nuptial plumage. Though Bolivia is sometimes included in its range, there is absolutely no evidence for the species occurring anywhere outside Argentina.

*Material examined*.—Argentina: Sierra de Uspallata, Mendoza, 3; Santa Elena, Entre Ríos, 1; Bahía Blanca, Buenos Aires, 3; Roca, Rio Negro, 1.

<sup>2</sup> *Melanodera* Bonaparte may be separated from *Phrygilus* by more conical bill with acute tip; greatly exaggerated wing-tip, which is equal to about one-third of the length of the wing, and differently colored juvenile plumage.

<sup>3</sup> *Melanodera melanodera*, in comparison to *M. xanthogramma*, is characterized by lesser dimensions and the white (instead of yellow) coloration of superciliary and malar streaks. The males are evidently not dimorphic and show relatively little variation, which concerns mainly the amount of gray suffusion on the back. They generally resemble the blue-gray variant of *xanthogramma*, but lack the greenish frontal band; the blue-gray is chiefly confined to pileum and hind neck, and if the dorsal feathers are margined with blue-gray, the green color always largely predominates on the back; the upper wing coverts are always uniform yellowish green, without any or with but occasional small grayish tips, to the

- Emberiza melanodera* Quoy and Gaimard, in Freycinet, Voy. Uranie et Physicienne, Zool., 1, livr. 3, p. 109, August, 1824—"les îles Malouines" (cotypes in Paris Museum).
- Chlorospiza* (?)*melanodera* Gray, in Darwin, Zool. Beagle, 3, Birds, p. 95, pl. 32, 1839—part, East Falkland Island.
- Melanodera typica* Bonaparte, Consp. Gen. Av., 1, (2), p. 470, 1850—new name for *Emberiza melanodera* Quoy and Gaimard; Gould, Proc. Zool. Soc. Lond., 27, p. 95, 1859—Falkland Islands (eggs descr.).
- Phrygilus melanoderus* Sclater, Proc. Zool. Soc. Lond., 28, p. 385, 1860—Falkland Islands; Abbott, Ibis, 1861, p. 153—Falklands; Sclater, Cat. Coll. Amer. Bds., p. 111, 1862—Falklands; Sclater and Salvin, Ibis, 1868, pp. 185, 186—part, Falklands; idem, Proc. Zool. Soc. Lond., 1878, p. 432—Falklands; Sharpe, Cat. Bds. Brit. Mus., 12, p. 786, 1888—part, spec. a-t, Falklands (Port Louis, Berkeley Sound); Oustalet, Miss. Scient. Cap Horn, 6, p. B282, 1891—part, Falkland Islands; Schalow, Zool. Jahrb., Suppl., 4, p. 725, 1898—Port Stanley, Falklands (descr. of male and female); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 397, 1910—part, Falklands; Brooks, Bull. Mus. Comp. Zool., 61, p. 159, 1917—Falklands; Wace, El Hornero, 2, p. 204, 1921—Falklands (nesting).
- Phrygilus melanoderus melanoderus* Bennett, Ibis, 1926, p. 332—Falklands (breeding; crit. on color variation); Stone, Rep. Princet. Univ. Exp. Patag., 2, Orn., p. 840, pl. 15 (male), 1928—part, Falklands.
- Chlorospiza melanoderma* [sic] Vallengin, Mem. Proc. Manchester Lit. Philos. Soc., 48, No. 23, p. 43, 1904—Port Stanley (nest and eggs descr.).
- Melanodera melanodera* Lowe, Ibis, 1923, p. 518—part, Falklands.
- Melanodera melanodera melanodera* Dabbene, Anal. Soc. Cient. Arg., 115, p. 175, 1933—Falkland Islands (monog.).

*Range*.—Falkland Islands.<sup>1</sup>

1: Falkland Islands.

greater series; the outer margin to the remiges greenish yellow, very rarely with traces of grayish white edges to tertials; the under parts bright yellow, more like the green variety of *xanthogramma*, but the chest-feathers apically edged with bluish gray, and the lower abdomen white; the light portions of the lateral rectrices decidedly yellow.

A male believed by Sharpe to be possibly a hybrid between *xanthogramma* and *melanodera* has the malar stripe indeed slightly tinged with yellowish, but in other respects it is a typical *melanodera*.

*Measurements*.—Wing, 90–96, (female) 87–92; tail, 62–68, (female) 60–64; tail, 11–12.

*Material examined*.—Falkland Islands: Berkeley Sound, 1; East Falkland, 1; Port Stanley, 4; Sappers Hill, 1; West Falkland, 1; Teal Inlet, 5; Carcass Island, 5; unspecified, 11.

The "Yellow-winged Bunting" of Portlock (Voyage round the World, p. 36, pl. facing p. 35, 1789—Falkland Islands), upon which *Emberiza chrysoptera* Latham (Ind. Orn., 1, p. 401, 1790) is based, very likely was intended for the Black-throated Finch, but the description can hardly be reconciled with its characters. While the light lateral rectrices and the greenish yellow patch on the wings are conspicuous enough, yet one of the figures shows an extensive area of white occupying the throat and lower sides of the head up to the eyes, bounded below by a broad dusky jugular crescent! In view of this discrepancy and other ambiguities I hesitate to advocate the adoption of Latham's specific term.

<sup>1</sup> *Phrygilus malvinarum* Brooks (Proc. New Engl. Zool. Cl., 6, p. 25, 1916; idem, Bull. Mus. Comp. Zool., 70, p. 159, 1917; Wace, El Hornero, 2, p. 204,

**Melanodera melanodera princetoniana** (Scott).<sup>1</sup> PATAGONIAN BLACK-THROATED FINCH.

*Phrygilus princetonianus* Scott, Bull. Brit. Orn. Cl., **10**, p. lxiv, April 30, 1900—Cheike, Patagonia (type in Museum of Zoology, Princeton University); Salvadori, Ann. Mus. Civ. Stor. Nat. Genova, **40**, p. 621, 1900—Santa Cruz, Patagonia (descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, **18**, p. 397, 1910—Santa Cruz.

*Chlorospiza* (?) *melanodera* (not *Emberiza melanodera* Quoy and Gaimard) Gray, in Darwin, Zool. Beagle, **3**, Birds, p. 95, 1839—part, Santa Cruz, Patagonia.

*Phrygilus melanoderus* Sclater and Salvin, Ibis, 1868, pp. 185, 186—part, Patagonia; Sharpe, Cat. Bds. Brit. Mus., **12**, p. 786, 1888—part, spec. u-x, Straits of Magellan and Santa Cruz, Patagonia; Oustalet, Miss. Scient. Cap Horn, **6**, p. B282, 1891—part, Patagonia (Santa Cruz); Crawshay, Bds. Tierra del Fuego, p. 54, col. pl., 1907—Useless Bay Settlement; Dabbene, Anal. Mus. Nac. Buenos Aires, **18**, p. 397, 1910—part, Santa Cruz and Tierra del Fuego; Pozzi, El Hornero, **3**, p. 184, 1923—Aguada Grande, Rio Santa Cruz, Patagonia.

*Phrygilus melanoderus melanoderus* Stone, Rep. Princet. Univ. Exp. Patag., **2**, Orn., p. 840, 1928—part, Santa Cruz, Patagonia.

*Melanodera melanodera* Lowe, Ibis, 1923, p. 518—part, Patagonia.

*Melanodera princetoniana* Lowe, Ibis, 1923, p. 518—Patagonia and Tierra del Fuego.

*Melanodera melanodera princetoniana* Wetmore, Univ. Calif. Pub. Zool., **24**, p. 462, 1926—Rio Coyle, Santa Cruz (crit.); Dabbene, Anal. Soc. Cient. Arg., **115**, p. 177, 1933—Aguada Grande, Santa Cruz, and Bahía Porvenir, Tierra del Fuego (monog.).

*Phrygilus melanoderus princetonianus* Stone, Rep. Princet. Univ. Exp. Patag., **2**, Orn., p. 841, pl. 15 (male, female), 1928—Cheike and Santa Cruz, Patagonia.

**Range.**—Tierra del Fuego and southern Patagonia (Santa Cruz, Aguada Grande, and Cheike, Dept. Santa Cruz).

1921; Bennett, Ibis, 1926, p. 332; idem, Ibis, 1931, p. 13), based on a single unsexed immature specimen from Port Stephens, West Falkland Island, in the Museum of Comparative Zoology, Cambridge, Mass., probably belongs likewise here. The existence of a third distinct species on the Falkland Islands appears altogether unlikely. No additional examples have come to hand since its description.

<sup>1</sup> *Melanodera melanodera princetoniana* (Scott): Similar to the nominate race, but with smaller, slenderer bills; wings on average shorter; wing coverts and edges to outer primaries, in adult males, yellower. Wing, 90–93, (female) 85–90; tail, 61–65, (female) 58–64; bill, 10–11.

Scott's diagnosis is misleading, being based on seasonal characters, as all of the specimens then in the British Museum were in fresh autumn plumage. It is remarkable that P. Reynolds obtained breeding birds with young of both *M. m. princetoniana* and *M. x. xanthogramma* in Tierra del Fuego, although the differences of degree separating them would seem to indicate conspecific relationship.

**Material examined.**—Tierra del Fuego: Sara, 1; Canchicol, 1; Cape Peñas, 2; Viamonte, 5.—Patagonia: Santa Cruz, 2; Valle del Lago Blanco, Chubut, 2; Straits of Magellan, 1.

**Melanodera xanthogramma<sup>1</sup> xanthogramma** (G. R. Gray).  
YELLOW-BROWED FINCH.

*Chlorospiza* (?) *xanthogramma* G. R. Gray, in Darwin, Zool. Beagle, 3, Birds, p. 96, pl. 33, Nov., 1839—East Falkland Island and Tierra del Fuego (type lost).<sup>2</sup>

*Melanodera xanthogramma* Bonaparte, Consp. Gen. Av., 1, (2), p. 470, 1850—Tierra del Fuego and Falkland Islands; Gould, Proc. Zool. Soc. Lond., 27, p. 95, 1859—Falkland Islands; Lowe, Ibis, 1923, p. 518—part, Patagonia and Falkland Islands; Bennett, Ibis, 1926, p. 332—Falklands.

<sup>1</sup> *Melanodera xanthogramma*, though obviously related to *M. melanodera*, differs nevertheless by markedly longer wings, stronger bill, and in the male sex by bright yellow color of superciliary and malar streaks, while the blue-gray variety is, furthermore, distinguished by a distinct green frontal band. The males appear to be dimorphic and show two different color types. One variety is above (from forehead to tail coverts) light green (about Warbler green, duller on hind crown and nape, including the upper wing coverts; remiges and rectrices edged with green; sides of head, aside from the bright yellow superciliary and malar streaks, green like the back; throat extensively black; chest and sides duller green than back, middle of breast and abdomen as well as under tail coverts bright yellow; light portion of three lateral rectrices decidedly yellow. This variety, which is faithfully depicted on pl. 33 in the "Zoology of the Beagle," is represented in my series by two birds in fresh plumage from Hermit Island and Viamonte, Tierra del Fuego (Aug. 19), respectively, and by a male in worn breeding dress from Tierra del Fuego (mountains north of Moat Bay, Jan. 8). Reynolds (Ibis, 1932, p. 39) takes this plumage for a postjuvenile dress, but the three specimens have all the appearance of being adult and do not show the least traces of immaturity. The other variety is bluish gray above, most of the feathers with half-concealed subterminal spots of green; the yellowish green upper wing coverts are terminally edged with bluish gray, the inner secondaries and rectrices likewise margined with gray; face-markings bright yellow as in green variety; across the forehead a broad green band; sides of head blue gray, only anteriorly washed with green; sides of neck, sides, and flanks bluish gray like back; chest bluish gray, subapical portion of feathers greenish yellow, more or less showing through; middle of lower abdomen and under tail coverts white or but slightly tinged with yellowish; pale portion of lateral rectrices white, only basally yellow. This plumage is represented by five specimens, all in fresh plumage, from Hermit Island and Tierra del Fuego (Cape Peñas, Aug. 12; Viamonte, Aug. 19 and 21). The Paris Museum has an example of the green form from Oazy Harbour, Tierra del Fuego, and two gray birds from Vauverland Island.

*M. x. xanthogramma* seems to be the only finch of this group to occur on the islands in the Cape Horn region, but in Tierra del Fuego P. W. Reynolds found it breeding at Viamonte side by side with *M. melanodera princepsiana*, which forces us to treat the Black-throated Finch and the Yellow-browed Finch as specifically different. It is rather curious that none of the more recent naturalists has succeeded in getting this bird on the Falkland Islands, where, according to Darwin, it is met in flocks, often in company of *M. m. melanodera*. The British Museum has, in fact, a wholly typical adult male shot by Macgillivray, naturalist of the "Rattlesnake," on July 11, 1850, at Port Stanley, and an unquestionable female obtained at Port Louis, East Falkland, by the Antarctic Expedition.

Wing, 100–107, (female) 100–102; tail, 63–72; bill, 11½–13. Wetmore refers birds from western Rio Negro (Arroyo Las Bayas) to the present form, though their wing-measurements are very slightly in excess of those of a breeding male from Santa Cruz (Lago Viedma).

*Material examined*.—Falkland Islands: Port Stephens, 1; Port Louis, 1.—Tierra del Fuego: Cape Peñas, 2; Viamonte, 5; mountains north of Moat Bay, 3; Oazy Harbour, 1.—Hermit Island, 3.—Vauverland Island, 3.

<sup>2</sup> The specimen from Hermit Island, erroneously listed by Sharpe as type, did not reach the Museum until five years after Gray's description was published.

*Phrygilus xanthogrammus* Sclater, Proc. Zool. Soc. Lond., 28, p. 385, 1860—Falkland Islands; Sclater and Salvin, Ibis, 1868, pp. 185, 186—Patagonia and Falklands; Sharpe, Cat. Bds. Brit. Mus., 12, p. 789, 1888—part, spec. a-e, Falkland Islands, Hermit Island, and Tierra del Fuego; Oustalet, Miss. Scient. Cap Horn, 6, p. B90, 1891—Orange Bay, Oazy Harbour, and Vauverland Island (crit., variation); Schalow, Zool. Jahrb., Suppl., 4, p. 724, 1898—Cabo Espiritu Santo, Tierra del Fuego (descr. of immature male); Salvadori, Ann. Mus. Civ. Stor. Nat. Genova, 40, p. 620, 1900—Santa Cruz and Punta Arenas, Patagonia (crit., variation); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 398, 1910 (range); Wace, El Hornero, 2, p. 204, 1921—Falklands; Stone, Rep. Princet. Univ. Exp. Patag., 2, Orn., p. 841, 1928—Punta Arenas, Patagonia.

*Melanodera xanthogramma xanthogramma* Wetmore, Univ. Calif. Pub. Zool., 24, p. 462, 1926—Upper Arroyo Las Bayas, Rio Negro, and Lago Viedma, Santa Cruz (crit., meas.); Dabbene, Anal. Soc. Cient. Arg., 115, p. 179, 1933—Hermit Island (monog.); Reynolds, El Hornero, 5, p. 342, 1934—Tierra del Fuego (dichromatism of males); idem, Ibis, 1935, p. 70—Otaries, Deceit, Freycinet, and Hershell Islands, Cape Horn.

**Range.**—Falkland Islands (occasional), Tierra del Fuego, and southern Patagonia, north to western Rio Negro (Upper Arroyo Las Bayas).

***Melanodera xanthogramma barrosi* Chapman.<sup>1</sup> CHILEAN  
YELLOW-BROWED FINCH.**

*Melanodera xanthogramma barrosi* Chapman, Amer. Mus. Novit., 96, p. 12, 1923—Rio Blanco, Prov. Aconcagua, Chile (type in the American Museum of Natural History, New York); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 71, 1932—high Cordilleras of Chile, in provinces of Aconcagua, Santiago, and Colchagua (crit.).

*Chlorospiza xanthogramma* (not of Gray) Bridges, Proc. Zool. Soc. Lond., 9, p. 94, 1841—"valleys near the summit of the Andes on the east and west sides" [between 34° and 35° lat. south]=Prov. Colchagua; Philippi, Anal. Univ. Chile, 31, p. 264, 1868—Chile; Landbeck, Zool. Garten, 18, p. 255, 1877—not rare on the highest passes over the Cordillera between Chile and Mendoza (descr. of male and female).

*Phrygilus xanthogrammus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 789, 1888—part, spec. f, Chile (spec. examined); Albert, Anal. Univ. Chile, 108, p. 214, 1901—part, Cordilleras of Santiago; Barros, Rev. Chil. Hist. Nat., 25, p. 190, 1921—Salto de los Piuquenes up to Castro, Prov. Aconcagua.

*Melanodera xanthogramma* Lowe, Ibis, 1923, p. 518—part, Chile.

<sup>1</sup> *Melanodera xanthogramma barrosi* Chapman: Similar to the nominate race, but larger, with stouter, longer bill; breast more extensively yellow; light markings on lateral rectrices pure white instead of canary yellow. Wing (male), 110–117; tail, 70; bill, 13½–14½.

A single adult male (in worn breeding condition) from an unspecified locality in Chile differs from several comparable examples from the Falklands and Hermit Island by much larger (both thicker and longer) bill and decidedly greater dimensions. The color-characters need confirmation by adequate series, the extent of yellow on the breast as well as the tone of the light markings on the tail being somewhat variable in the southern race.

*Phrygilus xanthogrammus barrosi* Barros, Rev. Chil. Hist. Nat., 33, p. 363, 1929—Cordillera of Aconcagua.

*Range*.—Cordilleras of central Chile, in provinces of Aconcagua, Santiago, and Colchagua, at elevations of from 8,000 to 11,000 feet.

### Genus **SPODIORNIS** Sclater

*Spodiornis* Sclater, Proc. Zool. Soc. Lond., 1866, p. 322—type, by orig. desig., *Spodiornis jardinii* Sclater = *Phrygilus rusticus* Tschudi.

### **Spodiornis rusticus rusticus** (Tschudi). TSCHUDI'S SLATY FINCH.

*Phrygilus rusticus* (Lichtenstein MS.) Tschudi, Arch. Naturg., 10, (1), p. 290, May, 1844—Peru (type in Berlin Museum examined); idem, Unters. Faun. Peru., Aves, p. 219, 1846—Peru.<sup>1</sup>

*Spodiornis jardinii* Sclater, Proc. Zool. Soc. Lond., 1866, p. 322—Quitian Andes, Ecuador (type in coll. of P. L. Sclater, now in British Museum, examined; descr. of adult male); Taczanowski and Berlepsch, l.c., 1885, p. 84—La Union, Ecuador (spec. examined); Sharpe, Cat. Bds. Brit. Mus., 12, p. 798, 1888—Ecuador (Nanegal, Quito) and Colombia ("Bogotá"); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 350—Garita del Sol, Junín, Peru (crit.); Goodfellow, Ibis, 1901, p. 474—Milligalli, Ecuador (spec. examined); Chapman, Bull. Amer. Mus. N. H., 36, p. 573, 1917—Almaguer, central Andes, Colombia.

<sup>1</sup> As has already been recorded by Zimmer (Proc. Biol. Soc. Wash., 42, p. 89, in text, 1929), examination of the type in the Berlin Museum showed *P. rusticus* to have been based on an immature male of the present species. It is labeled "*F. rustica* N. Cinchonwälder. B. Philippi," and presents the following dimensions: wing, 67; tail, 45; bill, 11 mm. The bird is in the process of molting from the olivaceous juvenile into the slaty adult plumage. On the upper parts the olivaceous feathers are in preponderance over the slaty ones excepting the rump and tail coverts, which are nearly uniform gray; there are a number of newly grown slaty feathers along the scapular edge of the wing, whereas the wing coverts and remiges—retained from the juvenile livery—are dusky brown with brownish olive external margins, and the edges to the rectrices are also slightly tinged with olivaceous. The ventral surface is dingy gray, the feathers with light-colored (dingy whitish or pale olivaceous) edges, producing a kind of indistinct streaking on throat and chest; the under tail coverts are brown edged with buffy. The coloration of the under parts is very similar to, though less olivaceous than, in an immature bird from Bolivia (Cillutincara) and in another from Venezuela (Galipán, Cerro del Avila). Proportions and shape of bill as well as wing-formula are quite normal. *Phrygilus unicolor*, to which Tschudi's name had been referred by authors, is quite different, being much larger with shorter, stouter bill, more rounded culmen, and decidedly inflated bases of the maxilla below the nasal fossa. Though Tschudi's description reads as if he had before him several specimens of different ages, Philippi does not appear to have obtained more than one (cf. Lichtenstein, Nomencl. Av. Mus. Berol., p. 43, 1854), and it is evident that Tschudi composed his description of the various plumages from the single molting example still in the collection of the Berlin Museum.

Another possible synonym of *P. rusticus* is *Conirostrum columbianum* Lesson (Echo du Monde Savant, 11e année, 2nd sém., No. 7, col. 158, July 25, 1844) from "Colombia" (type in coll. of Dr. Abeillé, Bordeaux). There are, however, various discrepancies, notably the color of the tarsi ("rougeâtre"), which do not well agree with any plumage of the present species.



*Spodiornis jelskii* Taczanowski, Orn. Pér., 3, p. 42, 1886—Ropaybamba, Dept. Junín, Peru (descr. of female; type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 175, 1927); Sharpe, Cat. Bds. Brit. Mus., 12, p. 798, 1888 (ex Taczanowski).

*Coryphospingus* sp. Sclater, Proc. Zool. Soc. Lond., 28, p. 88, 1860—Nanegal, Ecuador.

*Coryphospingus cristatus* (not *Fringilla cristata* Gmelin) Sclater, Cat. Coll. Amer. Bds., p. 109, 1862—part, spec. b, Nanegal.

*Cyanospiza* sp. Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 520—Ropaybamba, Peru.

*Spodiornis jardinii jardinii* Chapman, Bull. Amer. Mus. N. H., 55, p. 628, 1926—junction of Chanchan and Chiguancay rivers, below Calacali, upper Sumaco, below San José, and above Baeza, Ecuador (crit.).

**Range.**—Subtropical zone of northern Bolivia (Yungas of La Paz), eastern Peru (Caradoc, Marcapata; Ropaybamba and Garita del Sol, Junín), Ecuador, Colombia (central and eastern Andes), and northern Venezuela (Galipán, Cerro del Avila, Dept. Federal).<sup>1</sup>

### ***Spodiornis rusticus barrilesensis* Davidson.<sup>2</sup> COSTA RICAN SLATY FINCH.**

*Spodiornis barrilesensis* Davidson, Proc. Biol. Soc. Wash., 45, p. 167, 1932—Barriles, Chiriquí, Panama (type in the California Academy of Sciences).

*Spodiornis uniformis* (not *Haplospiza uniformis* Sclater and Salvin) Hellmayr, Nov. Zool., 13, p. 308, 1906—part, Carrillo, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 893, 1910—Carrillo (ex Hellmayr).

<sup>1</sup> Subdivision of the South American representatives of the species appears to be impracticable. Birds from the Caracas region I am unable to separate from those of Ecuador and Colombia. No adult males are available from Peru or Bolivia, but females and immature males from these countries are exactly like others from more northern localities.

**Material examined.**—Venezuela: Galipán, Cerro del Avila, 10.—Colombia: "Bogotá," 6.—Ecuador: Quitian Andes, 2; Milligalli, 1; La Union, 1.—Peru: Garita del Sol, Vitoc, 2; Caradoc, Marcapata Valley, 1.—Bolivia, La Paz: Cilluncara, 2; Cocapata, 2.

<sup>2</sup> *Spodiornis rusticus barrilesensis* Davidson: Adult male similar to *S. r. rusticus*, but bill longer and deeper, also broader and more tumid at the base. Female unknown. Wing, 71; tail, 46; bill, 14.

The bill-characters of the adult male from Carrillo, Costa Rica, re-examined some years ago in the Tring Museum, are in such close agreement with the description of *S. barrilesensis* that we have no hesitation in referring it to that form, though we have not yet seen the type. We believe that the immature birds listed by Bangs and Griscom s.n. *S. j. jardinii* will also turn out to belong here. The altitudinal range of *S. r. barrilesensis* requires further investigation. While the type was obtained at an elevation of 4,500 feet, the Costa Rican specimens come from considerably lower altitudes, both Cachí and Carrillo being in the Tropical zone not much above 2,000 feet. There is, however, the possibility that the localities noted on the labels merely indicate the region in a general sense, and that the birds were actually taken on the ridges above those places.

**Material examined.**—Costa Rica: Carrillo, 1 (male adult; Dec. 4, 1898).

*Spodiornis jardinii jardinii* (not of Selater) Bangs and Griscom, Proc. New Engl. Zool. Cl., 13, p. 52, 1932—Cachí, Costa Rica (two immature specimens).

*Range*.—Tropical and Subtropical zones of western Panama (Barriles, Chiriquí) and Costa Rica (Cachí, Carrillo).

***Spodiornis rusticus uniformis* (Selater and Salvin).<sup>1</sup> MEXICAN SLATY FINCH.**

*Haplospiza uniformis* Selater and Salvin, Nomencl. Av. Neotrop., p. 157, 1873—Jalapa, Vera Cruz, Mexico (type in Salvin-Godman Collection, now in British Museum, examined; descr. of adult male); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 366, pl. 27, fig. 1, 1886—Jalapa; Sharpe, Cat. Bds. Brit. Mus., 12, p. 627, 1888—Jalapa; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 521, 1901—Jalapa.

*Spodiornis uniformis* Hellmayr, Nov. Zool., 13, p. 308, 1906—part, Jalapa, Mexico (crit.).

*Range*.—Subtropical zone of southeastern Mexico, in State of Vera Cruz (Jalapa).

**Genus ACANTHIDOPS Ridgway<sup>2</sup>**

*Acanthidops* Ridgway, Proc. U. S. Nat. Mus., 4, p. 335, March 10, 1882—type, by orig. desig., *Acanthidops bairdi* Ridgway.

**\**Acanthidops bairdi* Ridgway. PEG-BILLED FINCH.**

*Acanthidops bairdi* Ridgway, Proc. U. S. Nat. Mus., 4, p. 336, March 10, 1882—Volcan de Irazú, Costa Rica (type in U. S. National Museum; descr. of female); idem, l.c., 6, p. 414, 1884; Selater, Ibis, 1884, p. 241—Volcan de Irazú (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 434, 1886—Volcan de Irazú; Sharpe, Cat. Bds. Brit. Mus., 12, p. 234, 1888—Volcan de Irazú; Ridgway, Proc. U. S. Nat. Mus., 11, p. 196, 1888—El Alto, Volcan de Póas, Costa Rica (descr. of adult male); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 519, 1901—Volcan de Irazú, Volcan de Póas, and "San José," Costa Rica (monog.); Carriker, Ann. Carnegie Mus., 6, p. 894, 1910—Costa Rica (Volcan de Póas, Escazú, Volcan de Irazú, Volcan de Turrialba).

*Range*.—Temperate zone of Costa Rica (Volcan de Póas; Volcan de Turrialba; Volcan de Irazú; Altos de Escazú, above San José).<sup>3</sup>

4: Costa Rica (Volcan de Turrialba, 3; Volcan de Irazú, 1).

<sup>1</sup> *Spodiornis rusticus uniformis* (Selater and Salvin): Similar to *S. r. barrile-sensis*, but larger, and the lower mandible light-colored. Wing (adult male), 75; tail, 50; bill, 14.

*Material examined*.—Mexico: Jalapa, Vera Cruz, 1 (the type).

<sup>2</sup> *Acanthidops* Ridgway, though allied to *Spodiornis*, is quite distinct by reason of its differently shaped bill.

<sup>3</sup> *Additional material examined*.—Costa Rica: Volcan de Póas, 1; Volcan de Irazú, 5; Altos de Escazú, above San José, 1.

Genus *HAPLOSPIZA* Cabanis<sup>1</sup>

*Haplospiza* Cabanis, Mus. Hein., 1, p. 147, October, 1851—type, by monotypy, *Haplospiza unicolor* Cabanis.

**\*Haplospiza unicolor** Cabanis. UNIFORM FINCH.

*Haplospiza unicolor* Cabanis,<sup>2</sup> Mus. Hein., 1, p. 147, October, 1851—Rio Grande [do Sul], Brazil (type in Heine Collection, now in the Municipal Museum, Halberstadt); Sclater, Cat. Coll. Amer. Bds., p. 108, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 227, 1870—Rio de Janeiro (São Luiz d'Almeida) and São Paulo (Mattodentro, Ypanemá, Itararé, Serra de Cubatão); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 123, pl. 8, figs. 1 (male), 2 (female), 1885—Taquara do Mundo Novo, Rio Grande do Sul; Sharpe, Cat. Bds. Brit. Mus., 12, p. 626, 1888—"Pelotas," Rio Grande do Sul, and Ypanemá, São Paulo; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 121, 1899—Mundo Novo; idem, Rev. Mus. Paul., 3, p. 165, 1899—São Paulo; idem, l.c., 5, p. 293, 1902—Baurú, São Paulo (nest and eggs descr.); idem, Cat. Faun. Braz., 1, p. 383, 1907—São Paulo (São Paulo, Estação Rio Grande, Salto Grande do Rio Paranapanema, Baurú); Bertoni, Rev. Inst. Parag., 1907, p. 3—Puerto Bertoni, Paraguay; Chubb, Ibis, 1910, p. 639—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 437, 1910—Alto Paraná, Paraguay; Bertoni, Anal. Soc. Cient. Arg., 75, p. 99, 1913—Alto Paraná; idem, Faun. Parag., p. 64, 1914—Puerto Bertoni and Iguasú, Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 359, 1914—Paraguay and Misiones; Sztolerman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 190, 1926—Marechal Mallet, Fazenda Concordia, Fazenda Ferreira, and Candido de Abreu, Paraná; Holt, Bull. Amer. Mus. N. H., 57, p. 319, 1928—Alto Itatiaya, São Paulo.

*Range*.—Wooded region of southeastern Brazil, from Rio de Janeiro (Serra dos Orgãos; São Luiz d'Almeida) to Rio Grande do Sul, and adjacent sections of Paraguay (Alto Paraná; Sapucay) and Argentina (Iguazú and Eldorado, Misiones); accidental in Buenos Aires (San Pedro).<sup>3</sup>

2: Argentina (Eldorado, Misiones, 2).

<sup>1</sup> *Haplospiza* Cabanis comes very close to *Spodiornis* Sclater, but may be separated by its thicker, basally more inflated bill and more pointed wing.

<sup>2</sup> As intimated by Bertoni (Rev. Inst. Parag., 1907, p. 3), the "Pico de punzon obscuro aplomado" Azara (Apunt. Hist. Nat. Paxaros, 1, p. 424, No. 111), observed at San Ignacio Guasú, Paraguay, by Nosedá, upon which *Pipra plumbea* Vieillot (Nouv. Dict. Hist. Nat., nouv. éd., 19, p. 162, 1818) is based, may be referable to the Uniform Finch, but in view of the impossibility of identifying the bird with absolute certainty a change in current nomenclature seems hardly warranted.

<sup>3</sup> An adult male secured by A. G. Freis at San Pedro, Buenos Aires, on August 15, 1914, and preserved in the National Museum at Buenos Aires, agrees with Brazilian specimens.

*Material examined*.—Brazil: Colonia Alpina, Serra dos Orgãos, Rio de Janeiro, 2; São Luiz d'Almeida, Rio de Janeiro, 1; Ypanemá, São Paulo, 5; Taquara, Rio Grande do Sul, 6; unspecified, 3.—Argentina: San Pedro, Buenos Aires, 1.

Genus **LOPHOSPINGUS** Cabanis

*Lophospingus* Cabanis, Journ. Orn., 26, p. 195, 1878—type, by orig. desig., *Gubernatrix pusilla* Burmeister.

*Schistospiza* Sharpe, Cat. Bds. Brit. Mus., 12, p. 806, 1888—type, by monotypy, *Emberiza griseo-cristata* Lafresnaye and d'Orbigny.

**\*Lophospingus pusillus** (Burmeister). BLACK-CRESTED FINCH.

*Gubernatrix pusilla* Burmeister, Journ. Orn., 8, p. 254, 1860—Tucumán, Argentina (descr. of young male and female; type in Halle Museum).

*Lophospiza pusilla* Burmeister, Reise La Plata St., 2, p. 483, 1861—Manantial de Marlopa, Tucumán.

*Lophospingus pusillus* Cabanis, Journ. Orn., 26, p. 195, 1878—Córdoba; Sclater, Proc. Zool. Soc. Lond., 1879, p. 460—Córdoba; Sclater and Hudson, Arg. Orn., 1, p. 48, 1888—Córdoba to Tucumán; Sharpe, Cat. Bds. Brit. Mus., 12, p. 805, 1888—Córdoba and Tucumán; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 6, 1895—Santa Rosa, Salta (descr. of adult male); idem, l.c., 12, No. 292, p. 9, 1897—Campo Santo, Salta (descr. of female); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 180, 1902—vicinity of Tucumán; Baer, Ornith., 12, p. 218, 1904—Tapia, Tucumán; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 45, 1905—vicinity of Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 400, 1910—Córdoba, Salta, and eastern Jujuy; Dinelli, El Hornero, 1, p. 66, 1918—northwestern Argentina (nest and eggs descr.); Giacomelli, l.c., 3, p. 69, 1923—La Rioja (in winter); Wetmore, Bull. U. S. Nat. Mus., 133, p. 423, 1926—near Tapia, Tucumán, and Laguna Wall (200 kilom. west of Puerto Pinasco), Paraguay (crit.).

*Lophospingus pusilla* Hartert and Venturi, Nov. Zool., 16, p. 182, 1909—Tapia, Tucumán.

*Coryphospingus pusillus* Salvin, Ibis, 1880, p. 354, pl. 9, fig. 1 (=young)—Tucumán.

*Range*.—Southern Bolivia (Guanacos, Prov. Cordillera, Dept. Santa Cruz de la Sierra); western Argentina, from Salta and Jujuy south to La Rioja and Córdoba; western Paraguay (200 kilom. west of Puerto Pinasco, Paraguayan Chaco).<sup>1</sup>

1: Argentina (Monte Toro, Tucumán, 1).

<sup>1</sup> Adult males, which are rather scarce in collections, have the pileum, crest, and sides of the head deep black; a very conspicuous, pure white loreal spot; gray dorsal surface without any brownish suffusion; and a large black patch occupying chin and middle throat. This plumage has been correctly indicated by Salvadori, while all other descriptions refer to females or young males. A single adult male (with black head and throat-patch) from Guanacos, Bolivia, merely differs from typical Argentine birds by more extensive white ends to the three external rectrices, a divergency which requires corroboration by additional specimens.

*Additional material examined*.—Tucumán: Tapia, 5; Córdoba, 1.—Bolivia: Guanacos, 1.

**\*Lophospingus griseo-cristatus** (Lafresnaye and d'Orbigny).<sup>1</sup>  
GRAY-CRESTED FINCH.

*Emberiza griseo-cristata* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 79, 1837—Cochabamba, Valle Grande, Bolivia (type in Paris Museum examined; descr. of adult and young); d'Orbigny, Voy. Amér. Mérid., Ois., p. 363, pl. 47, fig. 1, 1844—"tout le versant oriental de la Cordillère de Bolivia, prov. de Cochabamba, Mizque, and Valle Grande."

*Lophospiza griseo-cristata* Bonaparte, Consp. Gen. Av., 1, (2), p. 471, 1850 (ex d'Orbigny).

*Coryphospingus griseocristatus* Cabanis, Mus. Hein., 1, p. 145, 1851 (ex d'Orbigny); Selater, Cat. Coll. Amer. Bds., p. 109, 1862—Bolivia; Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 605—Tilotilo (Yungas) and d'Orbigny's localities, Bolivia.

*Schistospiza griseocristata* Sharpe, Cat. Bds. Brit. Mus., 12, p. 806, 1888—Tilotilo, Bolivia.

*Range*.—Subtropical zone of the Andes of Bolivia (Tilotilo, La Paz; Cochabamba; Mizque; Parotani; Samaipata and Valle Grande, Santa Cruz).

4: Bolivia (Parotani, Cochabamba, 4).

Genus **CHARITOSPIZA** Oberholser<sup>2</sup>

*Tiaris* (not of Swainson, June, 1827) Swainson, Zool. Journ., 3, No. 11, p. 351, Dec., 1827—type, by orig. desig., *Fringilla ornata* "Temminck."

*Charitospiza* Oberholser, Smiths. Misc. Coll., 48, Part 1, p. 67, May 13, 1905—type, by orig. desig., *Fringilla ornata* Wied (not of Vieillot, 1817)=*Charitospiza eucosma* Oberholser.

**\*Charitospiza eucosma** Oberholser. WIED'S CRESTED FINCH.

*Fringilla ornata* (not of Vieillot, 1817) Wied, Reise Bras., 2, p. 191, 1821—Fazenda Valo, near the frontier of Minas Geraes, Bahia (cotypes in coll. of M. von Wied, now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 225, 1889);<sup>3</sup> Temminck,

<sup>1</sup> *Lophospingus griseo-cristatus* (Lafresnaye and d'Orbigny), while differing in many details of coloration, is closely similar to the genotype in structural characters. The only divergencies are the slightly stouter bill, the lesser development of the crest (only some of the median crown-feathers being elongated and at the same time more attenuated), and the somewhat shorter first primary. I agree with the late W. De W. Miller (Auk, 45, p. 380, 1928) that nothing is gained by separating the present bird generically under *Schistospiza*.

*Additional material examined*.—Bolivia: "Mojos" (errore), 1 (the type); Samaipata, 2; unspecified, 3.

<sup>2</sup> *Charitospiza* Oberholser: Closely allied to *Lophospingus* Cabanis, but crest-feathers decidedly narrower; wing-tip longer, the first primary being shorter than, rarely equal to, the fifth; tail somewhat shorter and nearly even; bill smaller, with broader nasal operculum; basal half of all but the middle pair of rectrices white, etc. Cf. Miller, Auk, 45, p. 381, 1928.

<sup>3</sup> Allen gives Barra da Vareda, which is in the same particular district of Bahia, as locality of the cotypes.

Nouv. Rec. Pl. Col., livr. 35, pl. 208 (male, female), June 20, 1823—Brazil (fig. of cotypes); Wied, Beitr. Naturg. Bras., 3, (1), p. 610, 1830—vicinity of Barra da Vareda, interior of Bahia.

*Tiaris ornata* Bonaparte, Consp. Gen. Av., 1, (2), p. 471, 1850—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 257, 1856—Lagôa Santa and Congonhas, Minas Geraes; Pelzeln, Orn. Bras., 3, p. 228, 1870—São Paulo (Nas Lages), Minas Geraes (Nas Furnas), Goyáz (Araguaya), and Matto Grosso (Cuyabá); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 410—Minas Geraes (Sant' Anna dos Alegres, Andrequecé, Curvelho, Lagôa Santa, Sete Lagôas); Sharpe, Cat. Bds. Brit. Mus., 12, p. 807, 1888—Bahia; Allen, Bull. Amer. Mus. N. H., 3, p. 372, 1891—Chapada, Matto Grosso; Ihering, Rev. Mus. Paul., 3, p. 169, 1899—São Paulo.

*Charitospiza eucosma* Oberholser, Smiths. Misc. Coll., 48, p. 67, 1905—new name for *Fringilla ornata* Wied, preoccupied; Ihering, Cat. Faun. Braz., 1, p. 391, 1907 (range); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 304, 1929—Maranhão (Codó, Cocos; Fazenda Inhuma, Alta Parnahyba; Tranqueira); Naumburg, Bull. Amer. Mus. N. H., 60, p. 359, 1930—Rio do Color, Matto Grosso.

*Charitospiza ornata* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 83, 1910—Bahia (Fazenda de Santo Antonio) and Piauhý (Santo Antonio de Gilboez and Chapada da Varzea Grande); idem, l.c., p. 182, 1925—same localities (plumages).

*Range*.—Campo region of Brazil, from southern Maranhão and Piauhý, and the interior of Bahia south to western Minas Geraes, northern São Paulo (Nas Lages), and Matto Grosso.<sup>1</sup>

8: Brazil (Codó, Cocos, Maranhão, 3; Inhuma, Alta Parnahyba, Maranhão, 2; Tranqueira, Maranhão, 2; Rio São Miguel, Goyáz, 1).

### Genus CORYPHOSPINGUS Cabanis<sup>2</sup>

*Coryphospingus* Cabanis, Mus. Hein., 1, p. 145, Oct., 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 73, 1855), *Fringilla cristata* Gmelin=*Fringilla cucullata* P. L. S. Müller.

#### \**Coryphospingus cucullatus cucullatus* (P. L. S. Müller).

##### NORTHERN RED-CRESTED FINCH.

*Fringilla cucullata* P. L. S. Müller, Natursyst., Suppl., p. 166, 1776—based on "Moineau, de Cayenne" Daubenton, Pl. Enl., pl. 181, fig. 1 (=male); Cayenne.

<sup>1</sup> In the large series examined I notice some seasonal and individual variation, but, aside from that, northern and southern examples seem to agree.

*Additional material examined*.—Piauhý: Chapada da Varzea Grande, 1; Santo Antonio de Gilboez, 4.—Bahia: Fazenda de Santo Antonio, Rio Preto, 3.—Goyáz: Rio Araguaya, 2.—Minas Geraes: Nas Furnas, 1.—São Paulo: Nas Lages, 5.

<sup>2</sup> *Coryphospingus* Cabanis differs, as has been pointed out by Miller (Auk, 45, p. 381, 1928), from the allied genera by the very different form of the crest, shorter upper tail coverts, and slenderer, more elongated bill.

*Passer cristatus* Boddaert, Tabl. Pl. Enl., p. 11, Dec., 1783—based on "Moineau, de Cayenne" Daubenton, Pl. Enl., pl. 181, fig. 1.

*Emberiza ruticapilla* Sparrman, Mus. Carlson., fasc. 2, pl. 44, 1787—patria not stated (type now in Stockholm Museum; cf. Gyldenstolpe, Ark. Zool., 19, A, No. 1, p. 21, 1926).<sup>1</sup>

*Fringilla cristata* Gmelin, Syst. Nat., 1, (2), p. 926, 1789—part, "male," mainly based on "Moineau, de Cayenne" Daubenton, Pl. Enl., pl. 181, fig. 1.

*Fringilla araguira* Vieillot, Hist. Nat. Ois. Chanteurs, p. 52\*, pl. 28\*, 1806—part, "la Guiane."<sup>2</sup>

*Coryphospingus cristatus* Layard, Ibis, 1873, p. 380—Pará (spec. examined); Salvin, Ibis, 1885, p. 216—Bartica Grove, British Guiana; Sharpe, Cat. Bds. Brit. Mus., 12, p. 803, 1888—part, spec. n. o, Pará and Bartica Grove; Snethlage, Journ. Orn., 55, p. 297, 1907—Pará and Santo Antonio do Prata, Brazil; Penard, Vog. Guyana, 2, p. 407, 1910—Surinam.

*Coryphospingus cucullatus* Hellmayr, Nov. Zool., 12, p. 278, 1905—Igarapé-Assú, Pará (crit.); idem, l.c., 13, p. 359, 1906—Santo Antonio do Prata, Pará; Ihering, Cat. Faun. Braz., 1, p. 391, 1907—part, Guiana and Pará; Berlepsch, Nov. Zool., 15, p. 122, 1908—Cayenne; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 17, 88, 1912—Pará localities (crit.); Snethlage, Bol. Mus. Goeldi, 8, p. 434, 1914—Pará, Benevides, Peixe-Boi, and Santo Antonio do Prata, Pará; Beebe, Trop. Wild Life, 1, p. 136, 1917—Bartica, British Guiana; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 93, 1918—Rijsdijkweg, Dutch Guiana; Chubb, Bds. Brit. Guiana, 2, p. 465, 1921—Ituribisci River, Supenaam, Bonasika River, Takutú, Mazaruni River, and Bartica; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 173, 1928—Pará.

*Range*.—French, Dutch, and British Guiana, and northeastern Brazil (Pará district, east of the Rio Tocantins).<sup>3</sup>

2: British Guiana (Hyde Park, Demerara River, 1; Mazaruni River, 1).

**\**Coryphospingus cucullatus rubescens* (Swainson).<sup>4</sup> SOUTHERN RED-CRESTED FINCH.**

<sup>1</sup> Although Sundevall (Vetensk.-Akad. Handl., 2, No. 3, p. 9, 1857) identified Sparrman's species with *Coryphospingus p. pileatus*, the notes on the type supplied by Dr. Lönnberg clearly indicate its pertinence to *C. cucullatus*, the specimen still showing remains of the original red coloring in spite of its excessively bleached condition.

<sup>2</sup> While Vieillot also quotes Azara's No. 136, from which the specific name is derived, his description and figure are doubtless based on the Guianan specimen.

<sup>3</sup> *Additional material examined*.—British Guiana: 10.—Brazil, Pará: Pará, 2; Igarapé-Assú, 1; Santo Antonio do Prata, 3.

<sup>4</sup> *Coryphospingus cucullatus rubescens* (Swainson): Similar to *C. c. cucullatus*, but with smaller, slenderer bill; under parts of adult male much darker, vinous red rather than rosy red, and the gular feathers at the extreme bases only dull grayish; female distinguishable by smaller bill.

I am not quite certain that the color-characters will prove to be constant, since the single Guianan male (topotypical *cucullatus*) that I have been able to

*Tachyphonus rubescens* Swainson, Quart. Journ. Sci. Litt. & Arts Roy. Inst., 20, No. 39, p. 64, October, 1825—"sent from Rio de Janeiro" (descr. of adult male; type in coll. of W. Swainson, now probably in University Museum, Cambridge, Eng.).

*Emberiza araguira* (not *Fringilla araguira* Vieillot) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 81, 1837—Yungas and Chiquitos, Bolivia (spec. in Paris Museum examined).

*Lophospiza cristata* (not *Fringilla cristata* Gmelin) Bonaparte, Consp. Gen. Av., 1, (2), p. 470, 1850—Brazil and Paraguay.

*Coryphospingus cristatus* Cabanis, Mus. Hein., 1, p. 145, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 213, 1856—southern Brazil (São Paulo to Rio Grande do Sul), Paraguay, and Chiquitos; Selater, Cat. Coll. Amer. Bds., p. 109, 1862—part, spec. a, Bolivia; Pelzeln, Orn. Bras., 3, p. 228, 1870—São Paulo (Unaíva, Ypanemá, Itararé, Irisanga, Rio Paraná, Paraná (Cimenterio), and Goyáz (Goyáz), Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 408—Minas Geraes (Uberaba) and São Paulo (Campinas, São Bento de Araraquara); Selater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 16—Potrero, Urubamba, Peru; Taczanowski, l.c., 1879, p. 230—Guajango, Rio Marañón, Peru;

examine closely approaches southern individuals in the intensity of the lower surface. The series of typical *cucullatus*, however, is inadequate, and as there exists evidently a large gap in the distribution, it seems advisable to keep the two races apart for the present. I formerly applied the name *araguira* to the southern form, but on recent reinvestigation of the case I came to the conclusion that Vieillot's full description and figure must have been made from the Guianan specimen, there being no Paraguayan material in collections at the time of his writing.

Recent study of the large series in the British Museum tends to show that there are three races instead of two. Seven males from British Guiana and one from Pará, when compared to southern birds, are not only decidedly paler, more pinkish, underneath, but differ also by their duller, less reddish (about Hay's brown) upper parts, thereby closely resembling the recently described *C. c. fargoii*. The other points of distinction mentioned above do not hold.

An extensive series of males from Bolivia and western Argentina may be distinguished from those of eastern Paraguay and southern Brazil by their duller, less reddish, about Hay's brown upper parts and on average slightly lighter red ventral surface, while the females are likewise duller, less reddish brown above. Two females from Potrero, Urubamba, Peru, and one male in worn plumage from Guajango, Marañón Valley, agree well with Bolivian specimens in corresponding condition. This race, whose proper name is *C. cucullatus fargoii* Brodkorb (Occas. Pap. Univ. Mich. Mus. Zool., 357, p. 4, Apr. 5, 1938—type, from 265 kilom. west of Puerto Casado, Paraguayan Chaco, in University of Michigan Museum of Zoology), thus seems to range from eastern Peru through Bolivia to Paraguay and Argentina west of the Rio Paraná.

*Additional material examined.*—*C. c. rubescens*.—Paraguay: Sapucay, 15; Mborero, 1; Villa Rica, 4; Bernalcúe, 1; Concepción, 2; Colonia Risso, 2.—Argentina: Santa Elena, Entre Ríos, 1.—Brazil: Rio Jordão, Araguary, Minas Geraes, 4; Agua Suja, near Bagagem, Minas Geraes, 4; Alambary, São Paulo, 1; Victoria, São Paulo, 1; Ypanemá, São Paulo, 12; São Bernardo Velho, São Paulo, 1; Goyáz City, Goyáz, 1; Chapada, Matto Grosso, 7.

*C. c. fargoii*.—Peru: Guajango, 1; Potrero, 2.—Bolivia: Tilotilo, 3; Rio Tanampaya, 2; Chulumani, 10; Cochabamba, 1; San José, Chiquitos, 3; Villa Montes, Tarija, 8; Carapari, 1; Aguairenda, 2; Caiza, 2; San Francisco, 1.—Argentina: San Lorenzo, Jujuy, 2; Salta, 3; Tapia, Tucumán, 1; Mocoví, Santa Fé, 2; Tapiakiolé, Formosa, 1.



Sclater and Salvin, l.c., 1879, p. 605—Tilotilo, Yungas; Salvin, Ibis, 1880, p. 354—Salta; White, Proc. Zool. Soc. Lond., 1882, p. 598—Orán, Salta; Taczanowski, Orn. Pér., 3, p. 28, 1886—Guajango and Potrero, Peru; Berlepsch, Journ. Orn., 35, p. 9, 1887—Lambaré, Paraguay (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 803, 1888—part, spec. a-m, Salta, Brazil ("Pelotas," Rio Grande do Sul; Itararé), Bolivia (Tilotilo), and Peru (Guajango, Potrero); Sclater and Hudson, Arg. Orn., 1, p. 48, 1888—Salta, Argentina; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Córdoba; Kerr, Ibis, 1892, p. 126—Fortín Nueve and Fortín Page, lower Pilcomayo; Holland, Ibis, 1893, p. 484—Santa Elena, Buenos Aires; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 6, 1895—Villa Rica, Colonia Risso, and Puerto Francia, Rio Apa, Paraguay; idem, l.c., 12, No. 292, p. 9, 1897—Jujuy (San Lorenzo) and Bolivia (Aguairenda, San Francisco, Caiza); Ihering, Ann. Est. Rio Grande do Sul, 16, p. 121, 1899—Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 168, 1899—São Paulo (Piracicaba, São Paulo, São Carlos de Pinhal); Kerr, Ibis, 1901, p. 224—Villa Concepción and Paraguayan Chaco, Paraguay; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 180, 1902—Tucumán; Lönnberg, Ibis, 1903, p. 471—Tatarenda, Bolivian Chaco; Baer, Ornith., 12, p. 218, 1904—Santa Ana and Tapia, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 258, 1904—Salta and Jujuy; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 45, 1905—vicinity of Tucumán; Chubb, Ibis, 1910, p. 638—Sapucay and Ybitimí, Paraguay (habits, nest); Grant, Ibis, 1911, p. 97—Colonia Risso and Curuzú Chica, Paraguay; Bertoni, El Hornero, 1, p. 191, 1918—Paraguay (nest).

*Coryphospingus cucullata(us)* Allen, Bull. Amer. Mus. N. H., 3, p. 370, 1891—Chapada, Matto Grosso (molt and eggs); Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 5, 1900—Urucúm, Matto Grosso; Oberholser, Proc. U. S. Nat. Mus., 25, p. 144, 1902—Sapucay, Paraguay; Berlepsch and Stolzmann, Ornith., 13, p. 84, 1906—Pampa de Derrumbe and Idma, Urubamba, Peru; Ihering, Cat. Faun. Braz., 1, p. 391, 1907—São Paulo (Piracicaba, São Carlos de Pinhal, Rio Feio, Baurú, Itatiba) (range excl. of Guiana and Pará); Hellmayr, Nov. Zool., 15, p. 36, 1908—Goyáz and Rio Araguaya, Goyáz; Hartert and Venturi, l.c., 16, p. 181, 1909—Mocoví, Chaco, and Tucumán (eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 400, 1910 (range in Argentina); idem, l.c., 23, p. 368, 1912—Villa Rica, Paraguay; Bertoni, Faun. Parag., p. 63, 1914—Alto Paraná, Paraguay; Ménégau, Rev. Franç. d'Orn., 5, p. 86, 1917—São Luiz de Cáceres, Matto Grosso; l.c., 5, p. 335, 1918—Villa Lutetia, near San Ignacio, Misiones; Bangs and Noble, Auk, 35, p. 462, 1918—Bellavista and Perico, Rio Marañón, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 113, 1921—Rio Cosireni, Santa Ana, and Chauillay, Urubamba, Peru; Dinelli, El Hornero, 1, p. 66, 1918—Tucumán (habits, nest, and eggs); Daguerre, l.c., 2, p. 271, 1922—Rosas, Buenos Aires (May 10, 1920); Giacomelli, l.c., 3, p. 69, 1923—La Rioja (rare); Pereyra, l.c., 3, p. 172, 1923—Moreno, F.C.O.; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 661, 1924—Las Talas, Buenos Aires; Bertoni, El Hornero, 3, p. 397, 1926—Puerto Bertoni, Paraguay; Pereyra, l.c., 3, p. 427, 1926—Zelaya, Buenos Aires; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5,

p. 190, 1926—Paraná (Therezina, Rio Ubasinho, Candido de Abreu, and Salto Guayra); Naumburg, Bull. Amer. Mus. N. H., 60, p. 358, 1930—Paraguay (Asunción, Fort Wheeler) and Matto Grosso (Belvedere de Urucúm, Urucúm, Descalvados, Tapirapoan); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 396, 1934—Descalvados, Matto Grosso; Castellanos, El Hornero, 5, p. 328, 1934—Valle de los Reartes, Córdoba.

*Coryphospingus cucullatus cucullatus* Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 258, 1930—Formosa (Tapikiolé), Santa Fé (Est. La Germania), and Bolivia (Villa Montes and Fortín Esteros, Tarija; San José and Buena Vista, Santa Cruz).

*Coryphospingus cucullatus araguira* (not *Fringilla araguira* Vieillot) Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 18 (in text), 1912—southern Brazil to Bolivia and Argentina; Tremoleras, El Hornero, 2, p. 24, 1920—Montevideo and Canelones, Uruguay; Wetmore, Bull. U. S. Nat. Mus., 133, p. 410, 1926—Argentina (crit.); Friedmann, Bull. Mus. Comp. Zool., 68, p. 233, 1927—Concepción, Tucumán.

*Range*.—Southern Brazil, from western Minas Geraes (Uberaba; Rio Jordão, near Araguary; Agua Suja, near Bagagem), southern Goyás (Leopoldina, Rio Araguaya; Goyás City), and Matto Grosso south through São Paulo, Paraná, and Santa Catharina to Rio Grande do Sul; Uruguay; Paraguay; northern Argentina, south to La Rioja, Córdoba, and Buenos Aires (rare) eastern Bolivia; eastern Peru (Urubamba Valley; upper Marañón Valley).

21: Brazil (Chapada, Matto Grosso, 5; Urucúm de Corumbá, Matto Grosso, 1; Baurú, São Paulo, 5); Bolivia (Buena Vista, Santa Cruz, 4); Argentina (Concepción, Tucumán, 5; Metan, Salta, 1).

**\**Coryphospingus pileatus*<sup>1</sup> *pileatus* (Wied). PILEATED FINCH.**

*Fringilla pileata* Wied, Reise Bras., 2, p. 160, 1821—Barra da Vareda, Rio Pardo, southern Bahia, Brazil (type in coll. of Prince Wied, now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 225, 1889); idem, Beitr. Naturg. Bras., 3, (1), p. 605, 1830—interior of Bahia.

<sup>1</sup>*Coryphospingus pileatus* is probably conspecific with *C. cucullatus*, such relationship being enhanced by the reoccurrence in northern Venezuela and Colombia of a gray-backed, white-bellied form (*brevicaudus*), whose range is separated from that of the typical race by the interposition of the red-colored *C. c. cucullatus*. The distribution of the gray and red representatives in certain parts of interior Brazil, however, calls for caution. While *C. c. rubescens* inhabits the western section of Minas Geraes (Uberaba; Rio Jordão, Araguary; Agua Suja, near Bagagem), *C. p. pileatus* is found in the eastern districts of the same state (Curvelho; Lagõa Santa). Their respective ranges thus come close together, and it is well to remember that both have been collected by the late G. A. Baer, near Leopoldina, on the upper Araguaya, Goyás, though not exactly at the same season. Otherwise, they evidently replace one another geographically.

*Tanagra cristatella* Spix, Av. Spec. Nov. Bras., 2, p. 40, pl. 53, fig. 1 (male), 1825—"in sylvis Rio de Janeiro," errore (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 674, 1906).

*Tachyphonus fringilloides* Swainson, Quart. Journ. Sci. Litt. & Arts Roy. Inst., 20, No. 39, p. 65, October, 1825—tableland of Bahia (descr. of male; type in coll. of W. Swainson).

*Fringilla ornata* (not of Temminck, 1823) Lesson, Traité d'Orn., p. 440, 1831—Brazil (type in Paris Museum).

*Passerina ornata* Lesson, Echo du Monde Sav., 11e année, 2nd sém., No. 10, col. 232, August 4, 1844—Brazil.

*Lophospiza pileata* Bonaparte, Consp. Gen. Av., 1, (2), p. 471, 1850—Brazil and "Paraguay" (errore).

*Coryphospingus pileatus* Cabanis, Mus. Hein., 1, p. 146, 1851—Brazil; Sclater, Cat. Coll. Amer. Bds., p. 109, 1862—part, spec. b, Brazil; Pelzeln, Orn. Bras., 3, p. 228, 1870—"Pompeio" [=Pompeo], "western" [=eastern] Minas Geraes; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 409—Minas Geraes (Lagõa Santa, Sete Lagõas, Curvelho); Taczanowski, Orn. Pér., 3, p. 28, 1886—"Peru," errore (ex Sclater and Salvin); Sharpe, Cat. Bds. Brit. Mus., 12, p. 804, 1888—part, spec. a-e, Bahia, Brazil; Ihering, Rev. Mus. Paul., 4, p. 154, 1900—Cantagallo, Rio de Janeiro; idem, Cat. Faun. Braz., 1, p. 391, 1907—Bahia and Espirito Santo (range in part); Hellmayr, Nov. Zool., 15, p. 36, 1908—Rio Araguaya, Goyáz; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 181, 1925—Bahia (Rio Preto, Santa Rita) and Piauihy (Remanso Surupí and Melansia, Rio Parnahyba) (eggs descr.); Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará.

*Coryphospingus cristatellus* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 82, 1910—Bahia (Alagoinhas; Solidade, near Carnahyba; Carnahyba; Joazeiro; Fazenda Tabõa, Rio Preto).

*Coryphospingus pileatus pileatus* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 303, 1929—Maranhão (Barra da Corda, Grajahú, São Francisco), Piauihy (Arára, Ibiapaba), and Ceará (Varzea Formosa; Serra de Baturité; Quixada; Juá, near Iguatú).

*Range*.—Interior of eastern Brazil, from southern Maranhão, Piauihy, and Ceará south to northern Goyáz (Leopoldina, Rio Araguaya), eastern Minas Geraes (Curvelho, Pompeo, Lagõa Santa, Sete Lagõas), and southern Bahia, and according to Ihering even to Espirito Santo and Rio de Janeiro (Cantagallo).<sup>1</sup>

51: Brazil (Barra da Corda, Maranhão, 5; Grajahú, Maranhão, 2; São Francisco, Maranhão, 1; Arára, Piauihy, 1; Ibiapaba, Piauihy, 4; Varzea Formosa, Ceará, 1; Serra de Baturité, Ceará, 1; Quixada, Ceará, 6; Juá, near Iguatú, Ceará, 19; Santo Amaro, Bahia, 1; Macaco Secco, near Andarahy, Bahia, 10).

<sup>1</sup> Additional material examined.—Goyáz: near Leopoldina, Rio Araguaya, 1 (adult male).—Minas Geraes: Pompeo, 1.—Bahia: Alagoinhas, 3; Solidade, 1; Joazeiro, 1; Carnahyba, 1; Fazenda Tabõa, Rio Preto, 1; unspecified, 14.

**\*Coryphospingus pileatus brevicaudus** Cory.<sup>1</sup> SHORT-TAILED  
PILEATED FINCH.

*Coryphospingus pileatus brevicaudus* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 346, 1916—Margarita Island, off Venezuela (type in Field Museum); Todd and Carriker, Ann. Carnegie Mus., 14, p. 529, 1922—Dibulla, Rio Hacha, Fonseca, and Valencia, Santa Marta region, Colombia (crit.).

*Coryphospiza pileata* (not *Fringilla pileata* Wied) Sclater, Proc. Zool. Soc. Lond., 23, p. 160, 1855—"Bogotá."

*Coryphospingus pileatus* Sclater, Cat. Coll. Amer. Bds., p. 109, 1862—part, spec. a, "Bogotá"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Carúpano, Venezuela; idem, l.c., 1869, p. 252—Lake of Valencia, Venezuela; Sharpe, Cat. Bds. Brit. Mus., 12, p. 804, 1888—part, spec. f-i, "Bogotá," Colombia, and Carúpano, Venezuela; Allen, Bull. Amer. Mus. N. H., 4, p. 53, 1892—Carúpano, Venezuela; Berlepsch and Hartert, Nov. Zool., 9, p. 30, 1902—Ciudad Bolívar, Orinoco, Venezuela; Lowe, Ibis, 1909, p. 322—Cariaco Peninsula, Venezuela; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 249, 1909—near Macanao, Margarita Island; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 201, 1916—Ciudad Bolívar, Venezuela.

*Range*.—Arid Tropical zone of northern Venezuela (including Margarita Island) south to the Orinoco Valley, and adjacent parts of Colombia (northeastern and eastern side of Santa Marta Mountains; not uncommon in native "Bogotá" collections).

9: Colombia (Bogotá, 3); Venezuela (Margarita Island, 2; Rio Aurare, 4).

Genus **RIHODOSPINGUS** Sharpe<sup>2</sup>

*Rhodospingus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 808, 1888—type, by virtual monotypy, *Tiaris cruenta* Lesson.

**\*Rhodospingus cruentus** (Lesson). CRIMSON FINCH.

*Tiaris cruentus* Lesson, Rev. Zool., 7, p. 435, 1844—"habite les provinces baignées par l'Océan Pacifique et notamment celle de Guayaquil," Ecuador (descr. of male and female; location of type not stated).

*Lophospiza cruenta* Bonaparte, Consp. Gen. Av., 1, (2), p. 471, 1850—Guayaquil (ex Lesson).

<sup>1</sup> *Coryphospingus pileatus brevicaudus* Cory: Very similar to *C. p. pileatus*, but tail shorter, and loreal spot decidedly white instead of gray. The wing measurements are not constantly different, though they average slightly less. The tail (in adult males) ranges from 48 to 55, against 57 to 64 in the nominate form.

"Bogotá" skins agree with others from Venezuela. Their precise origin is, of course, unknown, though they probably came from the llanos of the Rio Meta.

*Additional material examined*.—Venezuela: Cariaco, 3; Carúpano, 6; Ciudad Bolívar, Orinoco, 4.—Colombia: "Bogotá," 8.

<sup>2</sup> *Rhodospingus* Sharpe, as has been correctly pointed out by Miller (Auk, 45, p. 381, 1928), may be distinguished from *Coryphospingus* and the allied genera by longer, slenderer bill, shorter tail with subacute rectrices, and its unique coloration.

*Coryphospingus cruentus* Selater, Proc. Zool. Soc. Lond., 28, p. 276, 1860—Babahoyo, Ecuador; idem, Cat. Coll. Amer. Bds., p. 109, 1862—Babahoyo and Pallatanga, Ecuador; Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 322—Lechugal, Prov. Tumbes, Peru; Berlepsch and Taczanowski, l.c., 1883, p. 551—Guayaquil; idem, l.c., 1885, p. 85—Yaguachi, Ecuador; Taczanowski, Orn. Pér., 3, p. 30, 1886—Lechugal and "Tarapoto" (errore), Peru; Goodfellow, Ibis, 1901, p. 474—Santo Domingo, Ecuador.

*Rhodospingus cruentus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 808, pl. 15, fig. 1, 1888—Ecuador (Balzar, Babahoyo, Pallatanga) and Peru (Lechugal); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 26, 1899—Guayaquil, Vines, and Rio Peripa, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 629, 1926—Esmeraldas, Rio de Oro, Manta, Bahía de Caráques, Guayaquil, Chongoncito, Puna Island, Santa Rosa, and Pullango, Ecuador (crit.).

*Rhodospingus mentalis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 809, pl. 15, fig. 2, 1888—Puna Island, Ecuador (type in British Museum).

*Rhodospingus cruentatus* Brabourne and Chubb, Bds. S. Amer., 1, p. 384, 1913—emendation.

**Range.**—Arid Tropical zone of western Ecuador and extreme northwestern Peru (Prov. Tumbes).<sup>1</sup>

1: Ecuador (Puente de Chimbo, 1).

### Genus PEZOPETES Cabanis

*Pezopetes* Cabanis, Journ. Orn., 8, p. 415, Nov., 1860—type, by monotypy, *Pezopetes capitalis* Cabanis.

*Pezapetes* Bangs, Proc. New Engl. Zool. Cl., 3, p. 69, 1902—emendation.

### \**Pezopetes capitalis* Cabanis. LARGE-FOOTED SPARROW.

*Pezopetes capitalis* Cabanis, Journ. Orn., 8, p. 415, Nov., 1860—Costa Rica (type in Berlin Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 101, 1868—Costa Rica; Frantzius, Journ. Orn., 17, p. 300, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 189—Volcan de Chiriquí, Panama; Selater, Cat. Bds. Brit. Mus., 11, p. 254, 1886—Costa Rica (Volcan de Cartago, Irazú) and Volcan de Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 472, 1901—Costa Rica and Chiriquí (monog.); Carriker, Ann. Carnegie Mus., 6, p. 895, 1910—Costa Rica (Volcan de Turrialba, Volcan de Irazú, Las Vueltas de Dota, Azahár de Cartago, Cachí, Póas, Ujurrás de Térraba); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 281, 1910—Volcan de Turrialba, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1104, 1912—Costa Rica (Volcan de Irazú and Volcan de Barba) and Volcan de Chiriquí.

<sup>1</sup> The presence of black on the chin, which gave rise to the description of a supposed second species *R. mentalis*, is an individual character without any geographical significance. The locality "Tarapoto" cited by Taczanowski is unquestionably erroneous.

**Additional material examined.**—Ecuador: Yaguachi, 2; Guayaquil, 6; Puna Island, 4.

*Buarremon capitalis* Boucard, Proc. Zool. Soc. Lond., 1878, p. 55—Volcan de Irazú; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 322, pl. 23, fig. 1, 1884—Irazú, Costa Rica, and Volcan de Chiriquí; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Volcan de Irazú.

*Pezapetes capitalis* Bangs, Proc. New Engl. Zool. Cl., 3, p. 69, 1902—Volcan de Chiriquí.

*Range*.—Highlands of Costa Rica and extreme western Panama (Volcan de Chiriquí).<sup>1</sup>

8: Costa Rica (El Roble, Irazú, 1; Volcan de Irazú, 2; Volcan de Turrialba, 5).

### Genus PSELLIOPHORUS Ridgway

*Pseliophorus* Ridgway, Auk, 15, p. 225, July, 1898—type, by orig. desig., *Tachyphonus tibialis* Lawrence.

#### \**Pseliophorus tibialis* (Lawrence). YELLOW-THIGHED SPARROW.

*Tachyphonus tibialis* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 71, June, 1864—San José, Costa Rica (type in U. S. National Museum); idem, l.c., 9, p. 101, 1868—Costa Rica (San José, Dota, Volcan de Irazú, Rancho Redondo, Quebrada Honda); Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica (Dota, Rancho Redondo, La Palma, Quebrada Honda).

*Buarremon tibialis* Boucard, Proc. Zool. Soc. Lond., 1878, p. 56—Navárrro and Volcan de Irazú, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 322, pl. 23, fig. 2, 1884—Costa Rica (San José, Dota, Parita, Rancho Redondo, La Palma, Quebrada Honda, Volcan de Irazú, Navárrro) and Volcan de Chiriquí, Panama; Sclater, Cat. Bds. Brit. Mus., 11, p. 262, 1886—Costa Rica (Rancho Redondo, Volcan de Cartago, Parita, Irazú) and Chiriquí; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—La Palma de San José and Volcan de Irazú, Costa Rica; Alfaro, Gaceta Ofic. de Costa Rica, No. 288, Dec., 1888—Volcan de Póas, Costa Rica.

*Pseliophorus tibialis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 470, 1901—Costa Rica and Chiriquí (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 69, 1902—Boquete and Volcan de Chiriquí, Panama; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 280, 1910—Coliblanco and Volcan de Turrialba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 896, 1910—Costa Rica (Volcan de Turrialba, Coliblanco, El Copey, Las Vueltas, La Lagunaria de Dota, Achióte de Póas, Estrella de Cartago, Azahár de Cartago, Burgos de Irazú, Escazú, La Hondura; habits, nest, and eggs); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1101, 1912—highlands of Costa Rica and Chiriquí.

*Range*.—Highlands of Costa Rica and extreme western Panama (Volcan de Chiriquí).<sup>2</sup>

22: Costa Rica (Coliblanco, 7; Volcan de Irazú, 1; Volcan de Turrialba, 10; Juan Viñas, 1; Barba, 1; "Limón," 1; Boruca, 1).

<sup>1</sup> Six specimens from Chiriquí with a Costa Rican series.

<sup>2</sup> Specimens from the Volcan de Chiriquí appear to be identical with a Costa Rican series.

**Pselliophorus luteoviridis** Griscom.<sup>1</sup> YELLOW-GREEN SPARROW.

*Pselliophorus luteoviridis* Griscom, Amer. Mus. Novit., 141, p. 10, October, 1924—Cerro Flores, eastern Chiriquí, Panama (type in the American Museum of Natural History, New York).

*Range*.—Known only from the Cerro Flores, in eastern Chiriquí, Panama.

**Genus ATLAPETES** Wagler<sup>2</sup>

*Atlapetes* Wagler, Isis, 1831, p. 526—type, by monotypy, *Atlapetes pileatus* Wagler.

*Chrysopoga* Bonaparte, Consp. Gen. Av., 1, (2), p. 480, 1850—type, by monotypy, *Chrysopoga typica* Bonaparte=*Atlapetes gutturalis* Lafresnaye.

*Buarremon* Bonaparte, Consp. Gen. Av., 1, (2), p. 483, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 74, 1855), *Embernagra torquata* Lafresnaye and d'Orbigny.

*Pipilopsis* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—type, by subs. desig. (Cabanis, Mus. Hein., 1, p. 139, Oct., 1851), *Tanagra (Arremon) semirufus* Boissonneau.

*Atlantopetes* Cabanis, Mus. Hein., 1, p. 140, Oct., 1851—substitute for *Atlapetes* Wagler.

*Carenochrous* Selater, Proc. Zool. Soc. Lond., 24, p. 87, July, 1856—type, by subs. desig. (Selater, Cat. Bds. Brit. Mus., 11, p. 254, 1886), *Buarremon latinuchus* Du Bus.

*Pogonospiza* Berlepsch and Stolzmann, Ornith., 13, p. 67, Sept., 1906—type, by monotypy, *Pipilo mystacalis* Taczanowski.

**Atlapetes pileatus pileatus** Wagler. RUFOUS-CAPPED**ATLAPETES.**

*Atlapetes pileatus* Wagler, Isis, 1831, p. 526—Mexico (type in Munich Museum examined);<sup>3</sup> Bonaparte, Consp. Gen. Av., 1, (2), p. 486, 1850—Mexico; Selater, Proc. Zool. Soc. Lond., 26, p. 304, 1858—La Parada, Oaxaca; idem, l.c., 27, p. 380, 1859—state of Oaxaca; idem, Cat. Coll. Amer. Bds.,

<sup>1</sup> *Pselliophorus luteoviridis* Griscom: "Resembling *P. tibialis* in most of its structural characters and lemon-yellow thighs, but wings and tail black, not sooty slate; back bright olive-green, changing to dark olive-green on the rump; throat, sides of head, and auriculars hoary brownish gray with darker centers; breast bright yellowish olive-green, changing to olive-green on under tail coverts; tail much shorter in proportion. Wing (adult female), 83; tail, 83; bill, 14." (Griscom, l.c.)

By its shorter tail this obviously well characterized species seems to connect *Pselliophorus* with *Atlapetes*. It is known only from a single female, the type, obtained by the describer on the Cerro Flores (alt. 6,000 ft.) in eastern Chiriquí.

<sup>2</sup> Subdivision of this genus seems to be impracticable, the only character of importance, the relative stoutness of the bill, being too variable a feature to be used for generic distinction. Hardly two species are alike in this respect, and the gradation between the stout-billed "*Atlapetes*" and the more slender-billed "*Buarremon*" is so complete that no fast line can be drawn. Zimmer has already shown *Pogonospiza* to be untenable, and the yellow-throated species (*Chrysopoga*) do not appear to me properly separable either.

<sup>3</sup> A cotype is in the Vienna Museum.

p. 120, 1862—Oaxaca; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—alpine region of Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 405, 1886—La Parada, Oaxaca, and alpine region of Vera Cruz; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 148, 1886—Teziutlan, Puebla; Sharpe, Cat. Bds. Brit. Mus., 12, p. 740, 1888—La Parada, Totontepec, and Oaxaca, Mexico; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1096, 1912 (range).

*Atlapetes pileatus pileatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 460, 1901—Mexico (monog.); Griscom, Bull. Mus. Comp. Zool., 75, p. 421, 1934—Chilpancingo, Guerrero.

*Atlapetes pileatus canescens* van Rossem, Bull. Brit. Orn. Cl., 58, p. 126, July 13, 1938—Omiteme, Guerrero (type in British Museum examined).<sup>1</sup>

*Range*.—Middle and southern parts of Mexican plateau, in states of Puebla, Vera Cruz, Mexico, Oaxaca, Guerrero, Jalisco, Michoacan, and Morelos.

**\**Atlapetes pileatus dilutus* Ridgway. CHIHUAHUA AT LAPETES.**

*Atlapetes pileatus dilutus* Ridgway, Auk, 15, p. 228, July, 1898—Jesus Maria, Chihuahua, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 461, 1901—Chihuahua (monog.); Phillips, Auk, 28, p. 89, 1911—Tamaulipas (Guiaves, Montelunga, Carricitos, Galindo, Potrero, Rampahuila, Realito); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1096, 1912—Chihuahua; Griscom, Amer. Mus. Novit., 293, p. 6, 1928—Alvarez, San Luis Potosí; van Rossem, Bull. Mus. Comp. Zool., 77, p. 480, 1934—Bravo and Jesus Maria, Chihuahua.

*Range*.—Northern parts of Mexican plateau, in states of Chihuahua (Bravo, Jesus Maria), San Luis Potosí (Alvarez), and Tamaulipas.

3: Mexico (Galindo, Sierra Madres, Tamaulipas, 1; Yerba Buena, Tamaulipas, 1; unspecified, 1).

***Atlapetes albinucha* (Lafresnaye and d'Orbigny).<sup>2</sup> WHITE-NAPED AT LAPETES.**

*Embernagra albinucha* Lafresnaye and d'Orbigny, Rev. Zool., 1, p. 165, 1838—Cartagena, Colombia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 398, 1930).

<sup>1</sup> This alleged subspecies proves, on examination of the original series, to have been based upon very worn breeding birds, all the remaining specimens in the British Museum being in wholly (or very nearly) fresh plumage. Birds from Jalisco in good plumage are indistinguishable from eastern examples. The wing of adult males ranges in Guerrero from 65–72, in Oaxaca from 66–71, in the Valley of Mexico from 65–72 mm. Forty specimens of *pileatus* examined.

<sup>2</sup> This little-known species needs further investigation, and its peculiar distribution raises the question whether it is not merely a mutational form of *A. gutturalis*. The occurrence of yellow-bellied birds in southeastern Mexico, north of the area occupied by the white-bellied races, and this reappearance in northern Colombia (lower Magdalena Valley?) are apt to cast serious doubts on the specific



*Embernagra mexicana* Lesson, Rev. Zool., 2, p. 42, 1839—Mexico (type in coll. of Dr. Abeillé, Bordeaux).

*Buarremon albinucha(us)* Bonaparte, Consp. Gen. Av., 1, (2), p. 484, 1850—Mexico; Selater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—"Bogotá"; idem, l.c., 24, p. 86, 1856—Cartagena (monog.); idem, l.c., 25, p. 205, 1857—Jalapa, Mexico; idem, l.c., 27, pp. 364, 377, 1859—vicinity of Jalapa, Vera Cruz, and Totontepec, Oaxaca; idem, Cat. Coll. Amer. Bds., p. 91, 1862—Colombia and Mexico (Orizaba, Jalapa); idem, Proc. Zool. Soc. Lond., 1864, p. 173—Valley of Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 549, 1869—temperate region of Vera Cruz (alt. 600 to 1,100 metr.); Salvin, Cat. Strickl. Coll., p. 198, 1882—"Bogotá"; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 321, 1884—Mexico (Valley of Mexico; Jalapa and Orizaba; Totontepec) and Colombia ("Bogotá"); Selater, Cat. Bds. Brit. Mus., 11, p. 260, 1886—Mexico (Jalapa, Orizaba, Totontepec) and Colombia; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 141, 1886—Teziutlan, Puebla.

*Atlapetes albinuchus* Cabanis, Mus. Hein., 1, p. 140, 1851—Mexico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 463, 1901—southern Mexico and Colombia (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1097, 1912 (range).

*Range*.—Subtropical zone of southeastern Mexico, in states of Vera Cruz (Jalapa, Jico, Orizaba), Puebla (Teziutlan, Huachinango), Oaxaca (Totontepec), and northern Chiapas (Tumbalá, San Cristóbal), and northern Colombia (Cartagena).<sup>1</sup>

**\**Atlapetes gutturalis gutturalis* (Lafresnaye). YELLOW-THROATED ATLAPETES.**

*Arremon gutturalis* Lafresnaye, Rev. Zool., 6, p. 98, 1843—"Colombia"="Bogotá" (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 391, 1930).

"*Chrysopoga typica* (*Zonotrichia? aureigula* Bp. in litt.)" Bonaparte, Consp. Gen. Av., 1, (2), p. 480, 1850—"California," errore (type in Paris Museum examined).<sup>2</sup>

distinctness of the two groups. However, all we know about the Colombian distribution of *A. albinucha* is that the type was brought from Cartagena (in the Tropical zone!) by Candé, and that similar examples are occasionally met with in native "Bogotá" collections, whose exact origin is, of course, shrouded in uncertainty. Comparison of good series from Mexico and Colombia might yet reveal some differences, though I must admit that the few specimens examined from the two localities—all old Museum skins—do not seem to be separable from one another.

<sup>1</sup> Since writing the above account I have examined twenty-four specimens from Vera Cruz (Jalapa, Huatusco, Coatepec, Cuesta de Misantla) and Oaxaca (Totontepec) in the British Museum.

<sup>2</sup> The mounted type is so faded and soiled that its subspecific identity cannot be determined. There is absolutely no clue as to the country of origin—"California" being an obvious error—and Bonaparte's name will be better regarded as a synonym of the nominate form instead of being used—rather arbitrarily—for one of the Central American races.

*Buarremon gutturalis* Bonaparte, *Consp. Gen. Av.*, 1, (2), p. 484, 1850—Colombia (ex Lafresnaye); Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 86, 1856—"Bogotá" (ex Lafresnaye); Salvin, *Ibis*, 1874, p. 322 (note on type); Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1879, p. 504—Medellin and Remedios, Antioquia (eggs descr.); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 259, 1886—part, spec. n-p, Colombia (Bogotá and Medellin).

*Buarremon chrysopogon* Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 86, 1856—new name for *Chrysopoga typica* Bonaparte.

*Atlapetes gutturalis* Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1097, 1912—part, Colombia ("Bogotá," Medellin); Pigué, *Mém. Soc. Neuchât. Sci. Nat.*, 5, p. 808, 1914—La Camelia, near Angelópolis, Colombia.

*Atlapetes gutturalis gutturalis* Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 575, 1917—Colombia (Peque, La Frijolera, Las Lomitas, San Antonio, Cerro Munchique, Salento, Rio Toché, El Eden, Miraflores, La Sierra, La Candela, La Palma, Andalucía, Fusugasugá); Dwight and Griscom, *Amer. Mus. Novit.*, 16, p. 3, 1921—highlands of Colombia (crit.).

*Range.*—Subtropical zone of Colombia (excepting Santa Marta region).<sup>1</sup>

3: Colombia (Andalucía, Huila, 1; Cundinamarca, 1; Bogotá, 1).

### ***Atlapetes gutturalis coloratus* Griscom.<sup>2</sup> VERAGUAN YELLOW-THROATED ATLAPETES.**

*Atlapetes gutturalis coloratus* Griscom, *Amer. Mus. Novit.*, 141, p. 9, 1924—Cerro Flores, eastern Chiriquí, Panama (type in the American Museum of Natural History, New York); idem, *Bull. Mus. Comp. Zool.*, 78, p. 381, 1935—eastern Chiriquí and Veraguas.

*Buarremon chrysopogon* (not of Sclater) Salvin, *Proc. Zool. Soc. Lond.*, 1870, p. 189—part, Castillo, Veraguas.

*Buarremon gutturalis* (not *Embernagra gutturalis* Lafresnaye) Salvin and Godman, *Biol. Centr.-Amer., Aves*, 1, p. 320, 1884—part, Veraguas (Castillo, Calovévora); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 259, 1886—part, spec. j-l, Calovévora and Castillo, Veraguas; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 1, p. 641, 1901—part, Veraguas; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1097, 1912—part, Veraguas (Calovévora, Castillo).

*Range.*—Subtropical zone of eastern Chiriquí (Cerro Flores) and Veraguas, Panama.<sup>3</sup>

<sup>1</sup> Twelve specimens examined.

<sup>2</sup> *Atlapetes gutturalis coloratus* Griscom: "Differing from all other races in having the yellow throat patch of a deeper shade, tinged with orange in most of the specimens; under parts the darkest, the flanks and vent deep brownish gray, thighs dark slate, and nowhere any lighter than pale smoke gray below; upper parts exactly similar to *A. g. parvirostris*." (Griscom, l.c.)

Two specimens from Castillo, Veraguas, indeed have the throat orange, but another from Calovévora is not distinguishable from Colombian birds.

<sup>3</sup> An additional race, *A. g. azuerensis* Aldrich (*Sci. Pub. Clev. Mus. N. H.*, 7, p. 138, Aug., 1937), has been described from Cerro Viejo, Azuero Peninsula, Veraguas, Panama.

**\**Atlapetes gutturalis brunnescens* Chapman.<sup>1</sup> CHIRIQUÍ  
YELLOW-THROATED ATLAPETES.**

*Atlapetes gutturalis brunnescens* Chapman, Bull. Amer. Mus. N. H., **34**, p. 387, 1915—Boquete, Chiriquí, Panama (type in the American Museum of Natural History, New York); Griscom, Amer. Mus. Novit., **141**, p. 9, 1924—highlands of Chiriquí (crit.); idem, Bull. Mus. Comp. Zool., **78**, p. 381, 1935—Volcan de Chiriquí.

*Buarremon chrysopogon* (not of Sclater) Salvin, Proc. Zool. Soc. Lond., 1870, p. 189—part, Volcan de Chiriquí.

*Buarremon gutturalis* (not *Embernagra gutturalis* Lafresnaye) Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 320, 1884—part, Volcan de Chiriquí; Sclater, Cat. Bds. Brit. Mus., **11**, p. 259, 1886—part, spec. m, Volcan de Chiriquí.

*Atlapetes gutturalis* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 461, 1901—part, Volcan de Chiriquí; Bangs, Proc. New Eng. Zool. Cl., **3**, p. 69, 1902—Boquete; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1097, 1912—part, Boquete.

*Range*.—Subtropical zone of western Panama (Boquete and Volcan de Chiriquí, western Chiriquí).

2: Panama (Boquete, Chiriquí, 2).

**\**Atlapetes gutturalis parvirostris* Dwight and Griscom.<sup>2</sup> COSTA  
RICAN YELLOW-THROATED ATLAPETES.**

*Atlapetes gutturalis parvirostris* Dwight and Griscom, Amer. Mus. Novit., **16**, p. 3, 1921—Aquinare, Costa Rica (type in coll. of J. Dwight, Jr., now in the American Museum of Natural History, New York).

*Atlapetes chrysopogon* (not *Buarremon chrysopogon* Sclater) Cabanis, Journ. Orn., **8**, p. 414, 1860—Costa Rica; idem, l.c., **9**, p. 94, 1861—Costa Rica (young descr.).

*Buarremon chrysopogon* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 171—Dota, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., **9**, p. 101, 1868—Quebrada Honda, San José, and Dota; Frantzius, Journ. Orn., **17**, p. 300, 1869—Dota Mts., San José, and Quebrada Honda, Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 56—San José and Cartago; Nutting, Proc. U. S. Nat. Mus., **5**, p. 495, 1882—Volcan de Irazú.

<sup>1</sup> *Atlapetes gutturalis brunnescens* Chapman: Similar to *A. g. gutturalis*, but back more brownish, between olive brown and fuscous; flanks and under tail coverts more buffy brownish; bill smaller.

Six specimens from Boquete examined. This seems to be rather a poor race.

<sup>2</sup> *Atlapetes gutturalis parvirostris* Dwight and Griscom: Very similar in coloration to *A. g. gutturalis*, but with the small bill of *brunnescens*; yellow gular area slightly paler.

In the series of nineteen Costa Rican specimens I find considerable individual variation, and beyond the slightly paler yellow throat not one of the characters claimed by authors proves to be constant. Some individuals have the back decidedly darker (more blackish) than Colombian birds, but in others it is even paler mouse gray. The color of the flanks varies from light grayish olive to pure gray.

*Buarremon gutturalis* (not *Embernagra gutturalis* Lafresnaye) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 320, 1884—part, Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 259, 1886—part, spec. g-i, Costa Rica (San José, Irazú, Tucurríqui); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—San José, Cartago, and Cervantes de Cartago; Cherrie, Auk, 9, p. 25, 1892—San José (nest, eggs, and young descr.).

*Atlapetes gutturalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 461, 1901—part, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 899, 1910—highlands of Costa Rica (habits); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 280, 1910—Coliblanco; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1097, 1912—part, Costa Rica.

*Range*.—Subtropical zone of Costa Rica.

8: Costa Rica (Peralta, 1; San José, 3; Santa Cruz de Turrialba, 2; Cartago, 1; Coliblanco, 1).

**\**Atlapetes gutturalis fuscipygius* Dwight and Griscom.<sup>1</sup> NICARAGUAN YELLOW-THROATED AT LAPETES.**

*Atlapetes gutturalis fuscipygius* Dwight and Griscom, Amer. Mus. Novit., 16, p. 3, 1921—San Rafael del Norte, Nicaragua (type in the American Museum of Natural History, New York); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 341, 1932—San Juancito, Honduras.

*Range*.—Subtropical zone of northern Nicaragua and Honduras.

2: Nicaragua (San Rafael del Norte, 1; Matagalpa, 1).

**\**Atlapetes gutturalis griseipectus* Dwight and Griscom.<sup>2</sup> GUATEMALAN YELLOW-THROATED AT LAPETES.**

*Atlapetes gutturalis griseipectus* Dwight and Griscom, Amer. Mus. Novit., 16, p. 3, 1921—Quezaltenango, Guatemala (type in the American Museum of Natural History, New York); Griscom, Bull. Amer. Mus. N. H., 64, p. 369, 1932—Guatemala (Chichicastenango, Nebaj, Tecpam, Santa Ilania, San Lucas, Antigua, Panajachel, Quezaltenango); idem, Ibis, 1935, p. 553—Guatemala (Vera Paz and Sierra de las Minas) and Chiapas.

*Buarremon chrysopogon* (not of Sclater) Sclater and Salvin, Ibis, 1859, p. 15—Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 91, 1862—Guatemala.

*Buarremon gutturalis* (not *Embernagra gutturalis* Lafresnaye) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 320, 1884—part, Guatemala

<sup>1</sup> *Atlapetes gutturalis fuscipygius* Dwight and Griscom: Nearest to *A. g. brunescens*, but upper parts still browner, almost raw umber on rump and lower back; flanks and under tail coverts likewise deeper brownish. Wing (female), 74½; tail, 82; bill, 14½.

Two adult females from Honduras (Volcan de Puca and Paraiso) agree with a series from Nicaragua (Matagalpa).

<sup>2</sup> *Atlapetes gutturalis griseipectus* Dwight and Griscom differs from all other races by having the markedly paler yellow gular area extended onto the foreneck, and the breast more buffy or grayish, less whitish.

Three adults from southern Chiapas (Volcan de Tacana) agree with a series of fifteen from Guatemala. This is also a very poor race.

*Additional material examined*.—Guatemala: Cobán, 2; unspecified, 2.

(Cobán, Volcan de Fuego, Volcan de Agua, Totonicapam); Sclater, Cat. Bds. Brit. Mus., 11, p. 259, 1886—part, spec. a–f, Guatemala (Cobán, Volcan de Agua, Volcan de Fuego, Calderas); Cherrie, Proc. U. S. Nat. Mus., 14, p. 532, 1891—Guatemala (crit.).

*Atlapetes gutturalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 461, 1901—part, Guatemala; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 118, 1907—Tecpam; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1097, 1912—part, Guatemala.

*Range*.—Subtropical (and Arid Temperate) zone of Guatemala and the adjacent parts of southern Chiapas (Niquivil, Volcan de Tacana), Mexico.

6: Guatemala (Tecpam, 2; Sierra Santa Elena, 3; Vera Paz, 1).

**\**Atlapetes melanocephalus* (Salvin and Godman). SANTA MARTA  
ATLAPETES.**

*Buarremon melanocephalus* Salvin and Godman, Ibis, (4), 4, p. 121, 1880—San Sebastian, Colombia (type in Salvin-Godman Collection, now in British Museum; descr. of young); Sclater, Cat. Bds. Brit. Mus., 11, p. 261, 1886—San Sebastian and San José, Colombia; Bangs, Proc. Biol. Soc. Wash., 12, p. 178, 1898—San Miguel, Palomina, and San Francisco (descr. of young); idem, Proc. New Engl. Zool. Cl., 1, p. 79, 1899—San Sebastian and El Mamon; Allen, Bull. Amer. Mus. N. H., 13, p. 167, 1900—Las Nubes, Valparaiso, and El Libano.

*Atlapetes melanocephalus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1097, 1912—Santa Marta region; Todd and Carriker, Ann. Carnegie Mus., 14, p. 524, 1922—La Concepción, Chirua, (?)Páramo de Chiruqua, Santa Cruz, El Libano, Las Vegas, Cincinnati, Pueblo Viejo, San Lorenzo, Las Taguas, and Sierra Nevada de Santa Marta, Colombia (habits, nest, and eggs).

*Range*.—Subtropical zone of the Santa Marta region in northern Colombia.

1: Colombia (Chirua, Magdalena, 1).

***Atlapetes leucopis* (Sclater and Salvin).<sup>1</sup> WHITE-RIMMED  
ATLAPETES.**

*Buarremon leucopis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1878, p. 439 —“Yauayaca,” Ecuador (type in Salvin-Godman Collection, now in British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 261, pl. 14, 1886 —“Yauayaca.”

<sup>1</sup> *Atlapetes leucopis* (Sclater and Salvin) is a very distinct species and, to all appearance, a member of the genus *Atlapetes*. The only specimen examined, an adult female in perfect plumage, corresponds well to the figure of the type. A characteristic feature is the narrow white rim round the eye continued posteriorly into a short streak. There are a few dull rufescent dots in the otherwise black auriculars; the under surface is olive green, more brownish on the flanks; the throat is medially tinged with rufescent buff and indistinctly banded with blackish. Wing, 76; tail, 78; bill, 14½.

*Material examined*.—Ecuador: Las Palmas, Prov. Azuay (adult female; Jan. 24, 1932; Paris Museum).

*Atlapetes leucopsis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1097, 1144, 1912—"Yauyaca"; Chapman, Bull. Amer. Mus. N. H., 55, p. 631, 1926—Yanayacu, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 628, 1932—Las Palmas, Prov. Azuay, Ecuador (crit.).

*Range*.—Subtropical zone of Ecuador (Las Palmas, east of Gualaceo, Prov. Azuay; "Yanayacu").

**\**Atlapetes pallidinucha pallidinucha* (Boissonneau).<sup>1</sup> PALE-NAPED ATLAPETES.**

*Tanagra (Arremon) pallidinucha* Boissonneau, Rev. Zool., 3, p. 68, 1840—Santa Fé de Bogotá, Colombia (location of type unknown).

*Arremon pallidinucha* Lesson, Echo du Monde Sav., 11e année, 2nd sérm., No. 4, p. 80, 1844—Colombia (descr.); idem, Oeuvr. Buffon, éd. Levêque, 20, (Descr. Mamm. Ois.), p. 351, 1847—Colombia.

*Buarremon pallidinucha(us)* Bonaparte, Consp. Gen. Av., 1, (2), p. 484, 1850—Bogotá; Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 87, 1856—Bogotá (monog.); idem, Cat. Coll. Amer. Bds., p. 92, 1862—part, spec. a, b, Bogotá; Wyatt, Ibis, 1871, p. 327—Vetas (10,000 ft.), Santander, Colombia; Berlepsch, Journ. Orn., 32, p. 293, 1884—Bucaramanga; Sclater, Cat. Bds. Brit. Mus., 11, p. 268, 1886—part, spec. a-d, Bogotá; Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—vicinity of Bogotá.

*Buarremon sordidus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 138, 1871—Bogotá, Colombia (descr. of young; type in the American Museum of Natural History, New York).

*Atlapetes pallidinuchus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1100, 1912—part, Colombia (Bogotá, Bucaramanga, Vetas).

*Atlapetes pallidinuchus pallidinuchus* Chapman, Bull. Amer. Mus. N. H., 36, p. 576, 1917—Colombia (El Piñon, Chipaque, Choachi, La Pradera, La Mar, Palo Hueco, Subia, Anolaima).

*Range*.—Temperate zone of the eastern Andes of Colombia.<sup>2</sup>

5: Colombia (Bogotá, 2); Venezuela (Páramo de Tamá, Tachira, 3).

***Atlapetes pallidinucha papallactae* Hellmayr.<sup>3</sup> PAPALLACTA ATLAPETES.**

*Atlapetes pallidinucha papallactae* Hellmayr, Verh. Orn. Ges. Bay., 11, No. 4, p. 318, Dec. 5, 1913—Papallacta, eastern Ecuador (type in Munich Mu-

<sup>1</sup> *Atlapetes pallidinucha pallidinucha* (Boissonneau) so closely resembles *A. rufinucha baroni* as to suggest specific relationship of the two groups. However, their distribution in eastern Ecuador is not quite clear, and from Papallacta, for instance, both *A. pallidinucha papallactae* and *A. rufinucha spodionotus* have been recorded. More study of this complicated problem seems, therefore, imperative before an exact understanding of the inter-relationship of these birds can be expected.

<sup>2</sup> *Additional material examined*.—Colombia: Bogotá, 12; Bucaramanga, 1.

<sup>3</sup> *Atlapetes pallidinucha papallactae* Hellmayr: Similar to *A. p. pallidinucha*, but much darker throughout; the back, upper wing coverts, and tertials dark mouse gray (instead of deep neutral gray tinged with olive); remiges and rectrices

seum); Chapman, Bull. Amer. Mus. N. H., 36, p. 576, 1917—Almaguer, Laguneta, and Santa Isabel, central Andes of Colombia; idem, l.c., 55, p. 634, 1926—forest above Chambo, upper Mocha Canyon (east slope of Chimborazo), Galgalan (upper Rio Upano), upper Sumaco, Papallacta, Oyacachi; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, pp. 241, 627, 1932—Yunguilla (upper Rio Pastaza) and Las Palmas, east of Gualaceo (Prov. Azuay), Ecuador.

*Atlapetes pallidinuchus obscurior* Chapman, Bull. Amer. Mus. N. H., 33, p. 186, March, 1915—Santa Isabel, central Andes, Colombia (type in the American Museum of Natural History, New York).

*Buarremon pallidinuchus(a)* (not *Tanagra pallidinucha* Boissonneau) Sclater, Proc. Zool. Soc. Lond., 26, p. 551, 1858—Matos, Ecuador; idem, Cat. Coll. Amer. Bds., p. 92, 1862—part, spec. c, Matos; idem, Cat. Bds. Brit. Mus., 11, p. 268, 1886—part, spec. e-h, Ecuador (Matos, "Sical"); Goodfellow, Ibis, 1901, p. 470—Papallacta, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B83, 1911—Oyacachi, Ecuador.

*Carenochrous pallidinuchus* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 84—San Rafael and Baños, Ecuador.

*Atlapetes pallidinuchus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1100, 1912—part, Ecuador (Matos, "Sical," "Machay"<sup>1</sup> and "Mapoto"<sup>1</sup>).

*Buarremon pallidinucha papallactae* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 80, 1922—below Nono (near Quito), Ecuador.

*Range*.—Temperate zone of Ecuador (a few records only from the western slope) and central Andes of Colombia.

**\**Atlapetes rufinucha rufinucha* (Lafresnaye and d'Orbigny).**

**RUFIOUS-NAPED ATLAPETES.**

*Embernagra rufinucha* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 35, 1837—Yungas, Bolivia (type in Paris Museum examined).

*Arremon rufinucha* d'Orbigny, Voy. Amér. Mérid., Ois., p. 283, pl. 27, fig. 2, 1839—Yanacache and Carcuata, Prov. Yungas, north of Cochabamba.

*Buarremon rufinucha(us)* Bonaparte, Consp. Gen. Av., 1, (2), p. 484, 1850—Yungas; Sclater, Proc. Zool. Soc. Lond., 24, p. 87, 1856—Bolivia (monog.); idem, Cat. Coll. Amer. Bds., p. 91, 1862—Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 603—Yanacache, Carcuata, and Tilotilo, Yungas; Sclater, Cat. Bds. Brit. Mus., 11, p. 263, 1886—Tilotilo, Bolivia.

*Atlapetes rufinuchus(a)* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1098, 1912—Bolivia; Hellmayr, Nov. Zool., 32, p. 4, 1925—Yungas (crit.).

*Buarremon melanops* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 253—Simacu, Bolivia (type in Salvin-Godman Collection, now in British

black rather than fuscous and lacking the olive gray margins; under parts much more olivaceous (yellowish olive), only the throat being decidedly yellow. Dimensions the same.

Two specimens from the central Andes of Colombia (Santa Isabel) agree with a series of eleven skins from Papallacta, Ecuador.

<sup>1</sup> Doubtless pen-slips for San Rafael and Baños, respectively.

Museum, examined); idem, l.c., 1879, p. 603—Simacu, Yungas; Sclater, Cat. Bds. Brit. Mus., 11, p. 263, 1886—Simacu.

*Atlapetes melanops* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1098, 1912—Simacu.

*Range*.—Subtropical zone of Bolivia (Yungas of La Paz and Cochabamba).<sup>1</sup>

3: Bolivia (Yungas of La Paz, Chaco, 1; near Incachaca, Cochabamba, 2).

**\**Atlapetes rufinucha melanolaemus* (Sclater and Salvin).<sup>2</sup>**

BLACK-THROATED ATLAPETES.

*Buarremon melanolaemus* Sclater and Salvin, Ibis, (4), 3, p. 425, pl. 10, fig. 2, 1879—Cchachupata, Dept. Cuzco, Peru (type in Salvin-Godman Collection, now in British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 263, 1886—Cchachupata.

*Carenochrous melanolaemus* Taczanowski, Orn. Pér., 2, p. 525, 1884—Cchachupata.

*Atlapetes melanolaemus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1098, 1912—Cchachupata and Marcapata, Peru; Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 30, 1920—Chuhuasi, Carabaya, Peru (crit.).

*Buarremon rufinuchus* (not *Embernagra rufinucha* Lafresnaye and d'Orbigny) Sclater, Proc. Zool. Soc. Lond., 26, p. 293, 1858—from some district of Peru bordering on Bolivia (crit.).

<sup>1</sup> After examining upwards of twenty specimens, I came to the conclusion that there is only one form of rufous-capped *Atlapetes* in Bolivia. The characters of *B. melanops* based on Buckleian examples from Simacu, Yungas, appear to be individual. The intensity of the yellow color underneath and the amount of olivaceous suffusion on chest and flanks are exceedingly variable. Most of the specimens have a distinct yellow supraloral streak, but it varies in extent, and a male from San Jacinto has hardly a trace of it. The chin is as a rule plain yellow, though small black dots are present in many birds. The variation is not confined to any particular region, birds with or without yellow supraloral streak and with duller or brighter under parts occurring side by side in the Yungas of La Paz. It may also be remarked that the yellow loreal spot, being a mutational character in these birds, certainly does not denote specific distinctness.

*Additional material examined*.—Bolivia: Simacu, 3; Chulumani, 1; Tusiguaya, Chulumani, 2; Chaco, Yungas of La Paz, 5; Sandillani, 4; San Antonio, 2; Yungas (the type), 1; Cocapata, 3; San Cristóbal, 1; San Jacinto, 2; Quebrada Onda, Yungas of Cochabamba, 1.

<sup>2</sup> *Atlapetes rufinucha melanolaemus* (Sclater and Salvin) chiefly differs from *A. r. rufinucha* in having the throat largely black like the sides of the head. There is no trace of a yellow supraloral streak, and the black and yellow stripes in the malar region are likewise missing. The throat is rarely wholly black and, as a rule, medially variegated with yellowish or white at the base of the feathers. The under parts, in this form, are generally duller yellow with more extensive olivaceous shading across chest and along sides. The dimensions are about the same as in *A. r. rufinucha*.

*Additional material examined*.—Peru: Marcapata Valley (alt. 2,000 meters), 8; Chuhuasi, Sierra de Carabaya (alt. 7,000 ft.), 3; Limbani, Puno, 3; Oroya, Puno, 2.



*Range*.—Subtropical zone of southeastern Peru, in depts. of Cuzco (Cchachupata; Marcapata Valley) and Puno (Limbani, Oroya, and Chuhuasi, Sierra de Carabaya).

1: Peru (Limbani, Puno, 1).

**\**Atlapetes rufinucha latinuchus* (Du Bus). SLATY-BACKED  
ATLAPETES.**

*Buarremon latinuchus* Du Bus, Bull. Acad. Roy. Sci., Lettr. et Beaux Arts Belg., 22, (1), p. 154, 1855—"de la Colombie et du Pérou"<sup>1</sup> (type probably in Brussels Museum); Sclater and Salvin, Ibis, 1879, p. 426, pl. 10, fig. 1—Tambillo, Peru, and "Sical" [=Jima], Ecuador (crit.); Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 197—Cutervo, Peru; idem, l.c., 1882, p. 16—Tamiapampa and Chachapoyas, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 264, 1886—Tambillo, Peru, and Jima, Ecuador.

*Buarremon specularis* (Salvin MS.) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 228—Tambillo and Montaña de Palto, Prov. Jaen, Peru (no type indicated; type from Tambillo, in British Museum, examined).<sup>2</sup>

*Carenochrous latinuchus* Taczanowski, Orn. Pér., 2, p. 524, 1884—Peru (part, Tambillo, Montaña de Palto, Cutervo, Chachapoyas, Tamiapampa).

*Atlapetes latinuchus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1097, 1912—Ecuador (Jima) and Peru (Tambillo, Montaña de Palto, Chachapoyas).

*Atlapetes latinuchus latinuchus* Chapman, Amer. Mus. Novit., 250, p. 6, 1927—Peru (La Lejia, near Chachapoyas; Chaupe, near Huancabamba) and Ecuador (Loja); idem, Bull. Amer. Mus. N. H., 55, p. 631, 1926—Loja, Ecuador, and Chaupe, Peru.

*Atlapetes latinucha latinucha* Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 627, 1932—Las Palmas, east of Gualaceo, Prov. Azuay, Ecuador.

<sup>1</sup> Though given as "de la Colombie et du Pérou," the description seems to apply best to the form inhabiting northern Peru. The white alar speculum mentioned by Du Bus excludes *A. r. simplex*, while the color of the back ("supra obscure cinereus") eliminates the olive-backed *A. r. elaeoprorus*. Yet, examination of the type, if still extant, would be desirable. In the meantime we accept Berlepsch's designation of northeastern Peru as type locality, and it may still more be restricted to the region around Chachapoyas.

<sup>2</sup> It appears that Taczanowski, when publishing the name *specularis*, had no proper material to compare with, but made use of information received from Salvin. The "*latinuchus*" of British authors prior to 1879 was what we now call *A. r. spodiopnotus*, and it is no doubt with the latter bird that Stolzmann's specimens were compared. Thanks to the courtesy of Mr. J. von Domaniewski, I have been enabled to examine a female from Tambillo, which, although not in very good condition, seems to be inseparable from Chachapoyas skins. The posterior part of the pileum, it is true, is somewhat lighter ochraceous-tawny than the (hazel) fore-crown, but the feathers are worn and bleached. An immature male from Tamiapampa showing the same coloration of the head, I am led to refer birds from the Tambillo region to *latinuchus*, though study of more adequate material is desirable. Additional material since examined shows that there is no difference between Tambillo and Chachapoyas birds.

*Range*.—Subtropical zone of southeastern Ecuador (Las Palmas, Prov. Azuay; Loja) and northern Peru (on both sides of the Marañón south to Balsas and Chachapoyas).<sup>1</sup>

3: Peru (Uchco, 1; 10 miles east of Molinopampa, 2).

**\**Atlapetes rufinucha baroni* (Salvin).<sup>2</sup> BARON'S ATLAPETES.**

*Buarremon baroni* Salvin, Nov. Zool., 2, p. 5, pl. 1, fig. 1, 1895—Cajabamba and Huamachuco, Peru (type from Cajabamba, Salvin-Godman Collection, now in British Museum, examined).

*Atlapetes baroni* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1100, 1912—Peru (Cajabamba, Succha, Huamachuco).

*Range*.—Subtropical zone of the upper Marañón Valley, in depts. of Cajamarca (Cajabamba) and Libertad (Succha, Huamachuco), northern Peru.

1: Peru (Cajabamba, 1).

***Atlapetes rufinucha chugurensis* Chapman.<sup>3</sup> CHUGUR ATLAPETES.**

*Atlapetes latinuchus chugurensis* Chapman, Amer. Mus. Novit., 250, p. 5, Feb., 1927—Chugur, 40 miles northwest of Cajamarca, Peru (type in the American Museum of Natural History, New York).

<sup>1</sup> Two adult males from Las Palmas, Prov. Azuay, Ecuador, seem to be identical with others from the Chachapoyas region of Peru.

*Additional material examined*.—Ecuador: Las Palmas, 2.—Peru: Tambillo, 2; Tamiapampa, 3; Chachapoyas, 7; mountains east of Balsas, 1.

<sup>2</sup> *Atlapetes rufinucha baroni* (Salvin): Not unlike *A. r. latinuchus*, but easily distinguished by much lighter pileum, the forecrown being ochraceous-tawny, paling gradually to warm buff or light buff on the nape; paler, deep mouse gray rather than dark mouse gray back, upper tail and wing coverts; less blackish wings and tail; absence of the white alar speculum; a conspicuous yellow supraloral spot; paler, empire yellow rather than lemon chrome under parts fading abdominally into pinard yellow; more grayish flanks, etc. The yellow spot at the base of the bill, the strongly marked black malar stripe, and the absence of the alar speculum are characters in common with *A. r. comptus*, from which *A. r. baroni* differs, however, by much lighter pileum and much paler yellow under parts, not to mention several minor points of distinction.

In certain respects *A. r. baroni* bears close resemblance to *A. p. pallidinucha*, but it is much paler and distinctly gray above (without any olivaceous shading), much paler yellow below, in particular abdominally, and the buffy nuchal area is by no means narrowed posteriorly nor variegated with black edges.

Wing (male), 76½–83; tail, 80–85.

*Additional material examined*.—Peru: Cajabamba, 9; Succha, 3.

<sup>3</sup> *Atlapetes rufinucha chugurensis* Chapman: "Similar to *A. r. latinuchus*, of northeastern Peru, but crown paler and fading to ochraceous-buff on the nape (thus resembling many specimens of *A. r. comptus*); the upper parts averaging grayer, the under parts paler. Wing (male), 80–81; tail, 80–87." (Chapman, l.c.)

This race, which we have not seen, would seem to form the transition to *A. r. baroni* by slightly paler upper and under parts, as well as by the color of the crown fading to ochraceous-buff on the nape; but it evidently differs by possessing a white alar speculum, by lacking the yellow supraloral spot, and by generally darker coloration of the body plumage.

*Carenochrous latinuchus* (not *Buarremon latinuchus* Du Bus) Taczanowski, Orn. Pér., 2, p. 524, 1884—part, Paucal, Peru.

*Range*.—Subtropical zone of the Pacific slope of northwestern Peru (Chugur, Taulis, and Paucal, Dept. Cajamarca).

**\**Atlapetes rufinucha comptus* (Sclater and Salvin).<sup>1</sup> YELLOW-LORED ATLAPETES.**

*Buarremon comptus* Sclater and Salvin, Ibis, (4), 3, p. 426, 1879—Maraviña, Prov. Azuay, Ecuador (type in Salvin-Godman Collection, now in British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 264, pl. 15, 1886—Maraviña.

*Atlapetes comptus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1098, 1912—Maraviña.

*Atlapetes spodionotus comptus* Chapman, Bull. Amer. Mus. N. H., 55, p. 632, 1926—southwestern Ecuador (above Zaruma, Salvias, Chical, Taraguacocha, San Bartolo, Celica, Alamor, Guachanamá, Bestión) and northwestern Peru (Palamblla and El Tambo) (crit.).

*Range*.—Subtropical zone of southwestern Ecuador, in provinces of Cañar, Azuay, El Oro, and Loja (west of the Andes), and the adjacent parts of northwestern Peru (Palamblla and El Tambo, Dept. Piura).

1: Ecuador (Chical, Cañar, 1).

**\**Atlapetes rufinucha spodionotus* (Sclater and Salvin). SLATY-BACKED ATLAPETES.**

*Buarremon spodionotus* Sclater and Salvin, Ibis, (4), 3, p. 425, 1879—Guápulo and Calacali, Ecuador (type, from Guápulo, three miles northeast of Quito, in coll. of P. L. Sclater, now in the British Museum); Sclater, Cat. Coll. Amer. Bds., p. 91, 1862—Ecuador (Guápulo, Calacali); idem, Cat. Bds. Brit. Mus., 11, p. 264, 1886—Ecuador (Guápulo, Calacali, above Puellaro, Quito, "Sical," and "Maraviña"); Hartert, Nov. Zool., 5, p. 483, 1898—Cayambé, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 20, 1899—Ecuador (Pun; La Concepción, Chota; Huaca; Chaupi, Illiniza; "Nanegal"; Frutillas) (crit.); Goodfellow, Ibis, 1901, p. 471—Papallacta, Corazón, and Pichincha; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B83, 1911—Lloa, Pongo, and Afilana; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 80, 1922—Chinquil, below Lloa.

<sup>1</sup> *Atlapetes rufinucha comptus* (Sclater and Salvin): Like *A. r. spodionotus* without white alar speculum, but crown paler rufous, under parts richer yellow, black malar stripe more developed, and with a distinct yellow spot at the base of the bill above the lores.

Five specimens from southwestern Ecuador, including one from Jima, which may be considered as practically topotypical, agree in the characters given above, when compared with a series of *spodionotus*. Birds from the upper Chanchan Valley are intermediate between *comptus* and *spodionotus*. One example from Chical (Sical), south of Huigra, is referred to *comptus* by Chapman, while another from the same locality in the British Museum appears to be inseparable from average specimens from northern Ecuador.

*Buarremon latinuchus* (not of Du Bus) Sclater, Proc. Zool. Soc. Lond., 24, p. 87, 1856—vicinity of Quito (monog.); idem, l.c., 27, pp. 76, 85, 1859—Guápulo, Calacali, and above Puellaro.

*Carenochrous spodionotus* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 292—Cechce (crit.).

*Atlapetes spodionotus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1098, 1912—western Ecuador (Quito, Guápulo, Cechce, Calacali, above Puellaro, "Sical," "Maraviña"); Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Cerro Mojanda and Volcan de San Pedro Tingo, Ecuador.

*Atlapetes spodionotus spodionotus* Chapman, Bull. Amer. Mus. N. H., 55, p. 631, 1926—northwestern Ecuador (Hacienda Garzón, Mojanda Mountains, Pichincha, Yanacocha, Verdecocha).

*Range*.—Upper Subtropical and humid Temperate zones of northwestern and northeastern Ecuador, south to Chimborazo (Cechce) and east of the Andes at least to Papallacta.<sup>1</sup>

1: Ecuador (unspecified, 1).

### **Atlapetes rufinucha caucæ** Chapman.<sup>2</sup> CAUCA ATLAPETES.

*Atlapetes latinuchus caucæ* Chapman, Amer. Mus. Novit., 250, p. 6, 1927—Cerro Munchique, west of Popayán, Colombia (type in the American Museum of Natural History, New York).

*Atlapetes latinuchus latinuchus* (not *Buarremon latinuchus* Du Bus) Chapman, Bull. Amer. Mus. N. H., 36, p. 575, 1917—Cerro Munchique.

*Range*.—Subtropical zone of the western Andes of Colombia (Cerro Munchique, west of Popayán).

### **Atlapetes rufinucha elaeoprorus** (Sclater and Salvin).<sup>3</sup> OLIVE-BACKED ATLAPETES.

<sup>1</sup> There does not seem to be any constant difference between birds of the western and those of the eastern side of the Andes. While specimens from the Quito region generally have no yellow above the lores and hardly any traces of black in the malar region, there are exceptions to this rule. An adult from Lloa has the blackish malar streak just as well developed as *comptus*, and the yellow spot at the base of the bill is slightly suggested, while in a female from Huaca the latter marking, though small, is well visible. Birds from Cechce (near Alausí), Prov. Chimborazo, form the transition to *comptus*, one having the yellow supraloral spot well defined, though less extensive than in the latter. Various individuals, notably one from Pun, another from the Chota Valley, and the one from Huaca have traces of a white alar speculum, thus proving that there is no reason for separating the *latinuchus* group specifically from *rufinucha*. Maraviña must be a wrong locality for this form.

*Material examined*.—Ecuador: Lloa, 5; Huaca, 1; Chota Valley, 1; "Nanegal," 5; Pichincha, 3; Cechce, 3; Papallacta, 4; unspecified, 3.

<sup>2</sup> *Atlapetes rufinucha caucæ* Chapman: Resembles *A. r. latinuchus* in possessing a conspicuous white alar speculum, but with a small yellow supraloral spot; the crown darker; wings and tail shorter. Wing (males), 72–74; tail, 74–76.

Two specimens from the type locality examined.

<sup>3</sup> *Atlapetes rufinucha elaeoprorus* (Sclater and Salvin): Like *A. r. caucæ* with a conspicuous white alar speculum and a small, yellow supraloral spot, but back strongly tinged with olivaceous instead of being sooty gray.

*Material examined*.—Colombia: Santa Elena, 1; Medellín, 1.

*Buarremon elaeoprorus* Scater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 504, pl. 42, fig. 7 (egg)—Medellin and Santa Elena, Antioquia, Colombia (type, from Santa Elena, in Salvin-Godman Collection, now in British Museum); Scater, Cat. Bds. Brit. Mus., 11, p. 265, 1886—Santa Elena.

*Atlapetes elaeoprorus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1098, 1912—Santa Elena.

*Atlapetes latinuchus elaeoprorus* Chapman, Bull. Amer. Mus. N. H., 36, p. 575, 1917—Santa Elena (crit.).

*Range*.—Subtropical zone of the northern part of the central Andes of Colombia (Santa Elena, Medellin).

**Atlapetes rufinucha simplex** (Berlepsch).<sup>1</sup> BOGOTÁ ATLAPETES.

*Buarremon simplex* Berlepsch, Ibis, (5), 6, p. 128, 1888—"Bogotá," Colombia (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined).

*Atlapetes simplex* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1098, 1912—"Bogotá."

*Range*.—Known only from native "Bogotá" collections, probably the representative of the group in the eastern Andes of Colombia.

**Atlapetes fusco-olivaceus** Chapman.<sup>2</sup> DUSKY-HEADED ATLAPETES.

<sup>1</sup> *Atlapetes rufinucha simplex* (Berlepsch): Similar to *A. r. elaeoprorus*, but the white alar speculum absent or just faintly suggested. Wing (unsexed adults), 77-78; tail, 80-85.

While variable in intensity of the ground-color, the four specimens examined—all of the well-known "Bogotá" preparation—show a more or less distinct olivaceous tinge on the dorsal surface, thus closely resembling *A. r. elaeoprorus*, of the central Andes of Colombia. The coloration of the loreal region is not quite constant, two having a distinct, small spot of yellow at the base of the bill like *elaeoprorus*, while this feature is barely apparent in the two remaining individuals. Three specimens have no trace of a visible alar speculum, but on the fourth the white shows a little beyond the tips of the primary coverts.

*Material examined*.—Colombia: "Bogotá," 4.

<sup>2</sup> *Atlapetes fusco-olivaceus* Chapman: Upper parts dark olive green, brightest on rump; crown and sides of the head more blackish and decidedly darker than the back; loreal feathers basally yellow; wings and tail fuscous, the primaries externally edged with olive, the three outermost with grayish on apical half; under parts rich lemon yellow, the sides and flanks strongly washed with olive green; under tail coverts olive green; a well defined, though rather narrow maxillary stripe blackish; inner web of remiges conspicuously margined with white; feet dark brown; bill blackish. Wing (male), 76; tail, 80; bill, 14.

Aside from its more graduated tail and the total absence of rufous on the pileum, this bird, in style of coloration, bears a remarkable likeness to the East Andean *A. rufinucha simplex*, which it resembles in the strongly olive dorsal surface, lack of a white wing speculum, etc. It has, however, a somewhat heavier bill and a distinct blackish maxillary streak. The only specimen seen by us—it is the one with yellowish tips to the feathers of the pileum mentioned by Chapman—is unquestionably immature, and I wonder if the other examples supposed to be adult really represent the perfect plumage. It appears to me that more adequate material is needed to establish status and relationship of the present "species."

*Material examined*.—Colombia: La Palma, Huila, 1.

*Atlapietes fusco-olivaceus* Chapman, Bull. Amer. Mus. N. H., 33, p. 185, March, 1914—San Agustín, Huila, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 575, pl. 40, 1917—San Agustín and La Palma, Colombia.

*Range*.—Upper Tropical and Subtropical zones of the central Andes of Colombia (at the head of the Magdalena Valley).

**\**Atlapietes albo-frenatus albo-frenatus* (Boissonneau). MOUSTACHED ATLAPIETES.**

*Tanager (Arremon) albo-frenatus* Boissonneau, Rev. Zool., 3, p. 68, 1840—Santa Fé de Bogotá, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 392, 1930).

*Buarremon albifrenatus* Bonaparte, Consp. Gen. Av., 1, (2), p. 484, 1850—Colombia; Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 88, 1856—Bogotá (monog.); idem, Cat. Coll. Amer. Bds., p. 92, 1862—Bogotá; Wyatt, Ibis, 1871, p. 327—Alto, Santander, Colombia (alt. 5,000 to 7,000 ft.); Berlepsch, Journ. Orn., 32, p. 293, 1884—Bucaramanga, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 265, 1886—Colombia (Bogotá, Ocaña).

*Arremon mysticalis* Sclater, Rev. Mag. Zool., (2), 4, p. 8, 1852—"Nouvelle Grenade"—Bogotá (type in Paris Museum); idem, Contrib. Orn., 1852, p. 131, pl. 99—New Granada.

*Atlapietes albifrenatus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1098, 1912—Colombia (Bogotá, Ocaña, Bucaramanga); Chapman, Bull. Amer. Mus. N. H., 36, p. 576, 1917—Aguadita, El Roble, and Anolaima, Colombia.

*Range*.—Subtropical zone of the eastern Andes of Colombia.<sup>1</sup>

3: Colombia (Bogotá, 1; Cachiri, Santander, 2).

**\**Atlapietes albo-frenatus meridae* (Sclater and Salvin).<sup>2</sup> MÉRIDA ATLAPIETES.**

*Buarremon meridae* Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 785—near Mérida, Venezuela (type in coll. of P. L. Sclater, now in British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 266, 1886—near Mérida.

*Atlapietes meridae* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1099, 1912—Andes of Mérida.

<sup>1</sup> *Additional material examined*.—Colombia: Bogotá, 10; Bucaramanga, 1.

<sup>2</sup> *Atlapietes albo-frenatus meridae* (Sclater and Salvin) is easily distinguished from the nominate form by yellow throat, much narrower black submalar streak, and by lacking the black forehead, not to mention various minor divergencies. I cannot, however, see in it more than a well-marked geographic race, since the juvenile plumage of *albo-frenatus* also has a partly yellow throat.

*Additional material examined*.—Venezuela, Mérida: Mérida, 6; Capás, 1; Sierra, 1.

*Range*.—Subtropical and humid Temperate zones of western Venezuela (Cordillera of Mérida).

8: Venezuela (Valle, Mérida, 2; Escorial, 1; Nevados, 2; Culata, 1; Conejos, 1; Rio Mucujón, 1).

***Atlapetes leucopterus leucopterus* (Jardine). WHITE-WINGED ATLAPETES.**

*Arremon leucopterus* Jardine, Edinb. New Phil. Journ., (n.s.), 3, No. 1, p. 92, Jan., 1856—"eastern Cordillera of Ecuador" (type in coll. of Sir W. Jardine, present location unknown).

*Buarremon leucopterus* Sclater, Proc. Zool. Soc. Lond., 23, "1855," p. 214, pl. 109, pub. Feb. 5, 1856—"eastern Cordillera of the Andes near Quito at 6,000 ft. elevation" (descr. and fig. of type); idem, l.c., 24, p. 87, 1856—"western slope of the Andes near Quito (descr. of type, monog.); idem, l.c., 27, p. 138, 1859—Pallatanga, Ecuador; idem, Ibis, 1859, p. 114—Pallatanga; idem, Cat. Coll. Amer. Bds., p. 91, 1862—Pallatanga; idem, Cat. Bds. Brit. Mus., 11, p. 266, 1886—Ecuador (Pallatanga, "Jima"); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 20, 1899—Niebli, Ecuador; Goodfellow, Ibis, 1901, p. 470—Pichincha; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 80, 1922—road to Nanegal.

*Carenochrous leucopterus* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 548—Cayandede; idem, l.c., 1884, p. 292—Cayandede, Cechce, Surupata, and Bugnac.

*Atlapetes leucopterus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1099, 1912—western Ecuador (Pallatanga, "Jima," Cayandede, Cechce); Chapman, Bull. Amer. Mus. N. H., 55, p. 632, 1926—Huigra, junction of Chanchan and Chiguancay rivers, Churchi, Cumbaya, Pomasqui, Tumbaco, Pallatanga, and above Bucay; Berlio, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Volcan de Tumbaco.

*Range*.—Subtropical and Temperate zones of western Ecuador south to the Chimbo Valley.<sup>1</sup>

***Atlapetes leucopterus dresseri* (Taczanowski).<sup>2</sup> DRESSER'S ATLAPETES.**

<sup>1</sup> A series of this bird is fairly uniform. There is some individual variation in the tone of the rufous crown, the development of the buffy white supraloral spot, and the amount of blackish admixture on the forehead. Some individuals have hardly a trace of this color, while others show a distinct blackish frontlet, though this is still smaller and more dusky than in the specimens of *dresseri* with the least amount of black. The wing, in adult males, ranges from 67 to 74, the tail from 65 to 73. A Buckleyan skin labeled "Jima" agrees perfectly with others from the Pacific slope, so I believe the locality to be erroneous. Although the type was originally ascribed to the "eastern Cordillera," Sclater subsequently gave "the western slope of the Andes near Quito" as its patria.

*Material examined*.—Western Ecuador: Niebli, 3; Pichincha, 4; Surupata, 1; Cayandede, 1; Pedregal, 1; Cechce, 1; "Jima," 1; "Quito," 3; Sinche, Guaranda, 2.

<sup>2</sup> *Atlapetes leucopterus dresseri* (Taczanowski): Very similar to, and agreeing with, *A. l. leucopterus* in dimensions, but forehead much more extensively black; back paler, grayish to light brownish olive; buffy white supraloral spot larger;

*Carenochrous dresseri* Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 70—Montaña de Nancho, Dept. Cajamarca, Peru (type in Raimondi Collection, now in Lima Museum);<sup>1</sup> idem, Orn. Pér., 2, p. 528, 1884—Nancho.

*Buarremon dresseri* Sclater, Cat. Bds. Brit. Mus., 11, p. 266, 1886—Paucal, Montaña de Nancho.

*Atlapetes dresseri* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1099, 1912—Montaña de Nancho; Chapman, Bull. Amer. Mus. N. H., 55, p. 633, 1926—Ecuador (Lunamá, Las Piñas, Guainche, Alamor) and Peru (Milagros, Palambla) (crit.).

*Range*.—Subtropical zone of the Pacific slope of southwestern Ecuador, in provinces of El Oro and Loja, and northwestern Peru (Milagros, Tumbes; Palambla, Piura; Nancho, Cajamarca).

### *Atlapetes celicae* Chapman.<sup>2</sup> CELICA ATLAPETES.

*Atlapetes celicae* Chapman, Amer. Mus. Novit., 160, p. 7, 1925—Celica, Prov. Loja, Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 633, 1926—Celica.

*Range*.—Subtropical zone of southwestern Ecuador (known only from Celica, Prov. Loja).

### *Atlapetes simonsi* (Sharpe).<sup>3</sup> SIMONS'S ATLAPETES.

auriculars generally not so black; black mystacial stripe as a rule more strongly pronounced; breast and abdomen more or less strongly washed with buffy. Wing, (male) 68–72, (female) 64–67; tail, 69–74, (female) 65–69; bill, 13–14.

This southern representative exhibits much more variation than the nominate race. A good many individuals have the forepart of the crown solidly black, this color extending laterally in a broad stripe to the sides of the neck; in others this frontal band is decidedly narrower, but, even when interspersed with albinistic white feathers, still more extensive than in *leucopterus*. The auriculars are sometimes just as black as in the form of western Ecuador, and in one or two examples the black mystacial streak is by no means more pronounced. The under parts, as a rule, are strongly tinged with buff, though in a female from Guainche, Ecuador, they are just a faint shade more buffy than in the white-bellied *leucopterus*. Albinistic feathers, in a more or less irregular way, are frequently distributed over the forehead and sides of the head, forming sometimes a compact white area around the eye. Birds from southwestern Ecuador average slightly darker and more grayish above.

*Material examined*.—Peru: Palambla, Piura, 4.—Ecuador, Prov. Loja: Alamor, 1; Las Piñas, Alamor Range, 2; Guainche, southeast of Alamor, 1.

<sup>1</sup> The specimen formerly in the Warsaw Museum (cf. Sztolcman and Domaniwski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 176, 1927) was at best a cotype.

<sup>2</sup> *Atlapetes celicae* Chapman: "Agreeing in size and general coloration with *A. l. leucopterus*, but with no white [alar] speculum or evident white supraloral spot. Wing (male), 68½; tail, 63." (Chapman, l.c.)

This species, based on a single male, we have not seen. The dimensions given by the describer are sufficient to show that, in spite of the absence of the white alar speculum, it can have no relation to the much larger *A. seebohmi*. The occurrence of another "species" of the same group in the range of *A. l. dresseri* is certainly very striking, and more information regarding this bird is badly needed.

<sup>3</sup> *Atlapetes simonsi* (Sharpe) is another form of doubtful standing. When I examined the type, no material of either *A. dresseri* or *A. seebohmi* was available, comparison being therefore made with its seemingly nearest relative *A. leucopterus*. My original note dating from 1905 reads as follows: "Nearest to *A. leucopterus*, but



*Buarremon simonsi* Sharpe, Bull. Brit. Orn. Cl., 11, p. 2, Oct., 1900—Loja, Ecuador (type in British Museum examined).

*Atlapetes simonsi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1099, 1912—Loja; Chapman, Bull. Amer. Mus. N. H., 55, p. 633, 1926—Loja.

*Range*.—Subtropical zone of southern Ecuador (Loja, Prov. of Loja).

**\**Atlapetes seebohmi* (Taczanowski).<sup>1</sup> SEEBOHM'S ATLAPETES.**

*Carenochrous seebohmi* Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 70—Cajacay, Prov. Cajatambo, Dept. Ancachs, Peru (type in Raimondi Collection, now in Lima Museum); idem, Orn. Pér., 2, p. 527, 1884—Cajacay.

*Buarremon seebohmi* Sclater, Cat. Bds. Brit. Mus., 11, p. 267, 1886—Cajacay.

*Atlapetes seebohmi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1099, 1912—Cajacay.

*Range*.—Subtropical zone of the Pacific Cordillera of Peru, from Libertad (Maynapall, Otuzco) to Ancachs (Macate, Cajacay, Caras).

8: Peru (Macate, Ancachs, 8).

without visible alar speculum, only some of the primaries showing very little white at the extreme bases wholly concealed by the primary coverts. No trace of blackish suffusion on the forehead; rufous of crown darker; back paler, grayish brown; the white supraloral spot smaller; chin blackish; black mystacial stripe much broader. Wing (adult female, Loja, alt. 2,000 metr., June 3, 1899), 72; tail, 68½; bill, 14¼." The dimensions are seen to be decidedly greater than in the corresponding sex of *A. l. leucopterus* (wing, 67–69; tail, 63–67), which is in agreement with Chapman's figures for another female from Loja (wing, 76; tail, 75), and fall well within the measurements of female examples of *A. seebohmi*. In coloration, *A. simonsi* would seem to be intermediate, combining the blackish chin and absence of white alar speculum of *A. seebohmi* with the paler crown and other characters of *A. leucopterus*, but to differ from both by having no black whatever on the forehead. The larger size of the Loja form (*simonsi*) suggests the possibility of conspecific relationship between the *leucopterus* group and *seebohmi*, inasmuch as the presence or absence of a white alar speculum is a mutational character in other sections of the genus, as shown by *A. rufinucha* and allies.

Since writing this, I have had an opportunity of comparing the two original specimens of *simonsi* with a small series of *seebohmi* from Otuzco and Caras, and find that they differ merely by the complete absence of black suffusion about the forehead, by lacking the gray tinge across the chest, and somewhat lighter, posteriorly tawny pileum. In all principal characters, such as absence of white alar speculum, small white supraloral spot, black chin and malar stripe, extensively gray sides and flanks, buffy under tail coverts, etc., the two forms are perfectly alike, and there can be no question as to their being conspecific.

Wing, (male) 78, (female) 72; tail, 78, (female) 68½ (much worn); bill, 14–15.

Two specimens from Loja examined.

<sup>1</sup> *Atlapetes seebohmi* (Taczanowski) differs from *A. l. dresseri* by much greater size; much larger, heavier bill; much deeper, chestnut rufous rather than ochraceous-tawny or tawny crown; smaller white supraloral spot; lack of the white alar speculum; blackish chin; pure white throat and abdomen with strongly cinereous chest and sides, only the under tail coverts being buff. Wing, 74–81, (female) 74–76; tail, 80–87, (female) 75–77; bill, 15–16, (female) 14–15.

*Additional material examined*.—Peru: Maynapall, near Otuzco, 2; Otuzco, 3; Caras, 2.

**\**Atlapetes rufigenis* (Salvin).<sup>1</sup> RUFIOUS-EARED ATLAPETES.**

*Buarremon rufigenis* Salvin, Nov. Zool., 2, p. 5, pl. 1, fig. 2, 1895—Huamachuco and Cajabamba, Peru (type, from Huamachuco, in Salvin-Godman Collection, now in British Museum, examined).

*Atlapetes rufigenis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1101, 1912—Peru (Huamachuco, Cajabamba, Santiago); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 475, 1930—Cullcui, Marañón River, Peru (crit.).

*Range*.—Subtropical zone of the upper Marañón Valley and its tributaries, northern Peru (Cajabamba, Dept. Cajamarca; Huamachuco and Santiago, Dept. Libertad; Cullcui, Dept. Huánuco).

1: Peru (Cullcui, Huánuco, 1).

**\**Atlapetes schistaceus castaneifrons* (Sclater and Salvin).<sup>2</sup> CHESTNUT-FRONTED ATLAPETES.**

*Buarremon castaneifrons* Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 235, pl. 35, fig. 1—upper wood region of the Páramo de Culata, Mérida, Venezuela (type in coll. of P. L. Sclater, now in British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 268, 1886—Andes of Mérida.

*Atlapetes castaneifrons* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1100, 1912—Andes of Mérida.

*Buarremon schistaceus* (not *Tanagra schistaceus* Boissonneau) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 781—upper wood region of Culata, Venezuela.

*Range*.—Upper Subtropical and humid Temperate zones of western Venezuela (Cordillera of Mérida).

4: Venezuela (Culata, Mérida, 1; Páramo Frias, Mérida, 2; Rio Mucujón, Mérida, 1).

<sup>1</sup> *Atlapetes rufigenis* (Salvin): Similar to *A. seebohmi*, but still larger; no black on forehead or sides of the head, the whole pileum, nape, auriculars, and sides of the neck being clear Sandford's brown; the entire lores buffy white; chin white like the throat; under tail coverts light grayish olive, narrowly edged with light buff, instead of wholly warm buff, etc. Wing, 87–89, (female) 86; tail, 89–92, (female) 85; bill, 15–16.

*Additional material examined*.—Peru: Huamachuco, 4; Santiago, 1.

<sup>2</sup> *Atlapetes schistaceus castaneifrons* (Sclater and Salvin) is recognizable by the clear rufous (between orange-rufous and Sandford's brown) color of the pileum without any, or with but traces of, black on the forehead; distinct, though small, white supraloral spot; lack of the white alar speculum, etc.

All but one of the eighteen specimens examined have a small white spot at the base of the bill, although the figure of the type fails to show this feature. Three or four examples exhibit a few blackish streaks or dots at the very edge of the forehead.

*Additional material examined*.—Venezuela, Mérida: Culata, 4; Montañas, Sierra de Mérida, 2; Sierra Nevada, 1; "Mérida," 7.

**\**Atlapetes schistaceus tamae* Cory.<sup>1</sup> TAMÁ ATLAPETES.**

*Atlappes* [sic] *castaneifrons tamae* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 292, May, 1913—Páramo de Tamá, Tachira, Venezuela (type in Field Museum).

*Range*.—Subtropical zone of the Páramo de Tamá, on the confines of Colombia and the Venezuelan Province of Tachira.

7: Venezuela (Páramo de Tamá, Tachira, 5); Colombia (Páramo de Tamá, Santander del Norte, 2).

**\**Atlapetes schistaceus schistaceus* (Boissonneau). ASHY-BREASTED ATLAPETES.**

*Tanager* (Arremon) *schistaceus* Boissonneau, Rev. Zool., 3, p. 69, 1840—Santa Fé de Bogotá, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 392, 1930).

*Buarremon schistaceus* Bonaparte, Consp. Gen. Av., 1, (2), p. 484, 1850—Bogotá; Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 88, 1856—Bogotá (monog.); idem, l.c., 26, p. 551, 1858—Matos, Ecuador; idem, Cat. Coll. Amer. Bds., p. 92, 1862—Bogotá; idem, Cat. Bds. Brit. Mus., 11, p. 267, 1886—Colombia (Bogotá) and eastern Ecuador ("Intag"); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 20, 1899—Pun, Ecuador; Goodfellow, Ibis, 1901, p. 471—Papallacta, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 80, 1922—"road to Nanegal," western Ecuador.

*Atlapetes schistaceus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1099, 1912—Colombia (Bogotá) and Ecuador ("Intag," San Rafael); Chapman, Bull. Amer. Mus. N. H., 36, p. 576, 1917—Colombia (Paramillo, west of Popayán, Valle de las Pappas, Almaguer, Laguneta); idem, l.c., 55, p. 633, 1926—Ecuador ("road to Nanegal," above Baeza, Papallacta, Oyacachi, upper Sumaco, upper Rio Upano); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 241, 1932—Yunguilla, upper Pastaza, Ecuador.

*Carenochrous schistaceus* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 84—San Rafael, Ecuador.

*Range*.—Humid Temperate zone of Colombia and Ecuador.<sup>2</sup>

4: Colombia (coast range west of Popayán, Cauca, 2; Bogotá, 2).

<sup>1</sup> *Atlapetes schistaceus tamae* Cory: Very close to *A. s. castaneifrons*, but pileum darker (between Sandford's brown and burnt sienna); frontal edge slightly mottled with blackish; back on average more blackish; whitish supraloral spot obsolete; mystacial stripe less purely white or even grayish; under parts slightly darker gray; the throat less white, more or less shaded or mottled with gray. Wing, 74–78, (female) 73–74; tail, 79–82, (female) 76–78.

This is a connecting link to the nominate race of the Bogotá region. Two specimens, by their somewhat darker crown, closely approach certain light-capped individuals of typical *schistaceus*, whereas the opposite extreme (No. 44,726) is hardly a shade darker than *castaneifrons*. One male shows a trace of white beyond the tips of the primary coverts, and its back is by no means any darker than in the Mérida form. Three specimens have in the supraloral region a small grayish spot barely suggested in the remaining skins. The throat is generally more grayish, but in one or two individuals very nearly as whitish as in *castaneifrons*.

<sup>2</sup> I do not find any difference, even in size, between specimens from various parts of the range. The largest example I have seen is an adult from "Intag"

**\**Atlapetes schistaceus taczanowskii* (Sclater and Salvin).<sup>1</sup> TACZANOWSKI'S ATLAPETES.**

*Buarremon mystacalis* (not *Arremon mysticalis* Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 575—Maraynioc, Higos, and Sillapata, Dept. Junín, Peru (type, from Maraynioc, lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 176, 1927).

*Buarremon taczanowskii* Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 235, pl. 35, fig. 2—new name for *Buarremon mystacalis* Taczanowski, preoccupied; Sclater, Cat. Bds. Brit. Mus., 11, p. 267, 1886—Peru (Higos,<sup>2</sup> Sillapata).

*Carenochrous taczanowskii* Taczanowski, Orn. Pér., 2, p. 526, 1884—Peru (Maraynioc, Higos, Sillapata).

*Pipilopsis mystacalis* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 347—Maraynioc.

*Atlapetes mystacalis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1099, 1912—Peru (Higos, Sillapata, Maraynioc, Pariayacu).

*Atlapetes schistaceus mystacalis* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 475, 1930—mountains near Huánuco and Pano, Dept. Huánuco, Peru (crit.; descr. of young).

*Range*.—Upper Subtropical and humid Temperate zones of central Peru, in depts. of Huánuco and Junín.

7: Peru (Huánuco Mountains, 3; Pano Mountains, 4).

***Atlapetes schistaceus canigenis* Chapman.<sup>3</sup> GRAY-CHEEKED ATLAPETES.**

with a wing of 84, and a tail of 86 mm. East Ecuadorian birds agree well with a series of "Bogotá" skins. I must confess the occurrence in western Ecuador appears to me to require confirmation, the authorities for the two recorded localities "Intag" and "road to Nanegal"—Buckley and Söderstrom, respectively—being not absolutely trustworthy.

*Additional material examined*.—Colombia: "Bogotá," 7; Andes west of Popayán, 6.—Ecuador: Pun, 2; Papallacta, 7; "Intag," 1.

<sup>1</sup> *Atlapetes schistaceus taczanowskii* (Sclater and Salvin), as has been pointed out by authors, approaches *A. s. castaneifrons* in certain respects such as light-colored pileum and absence of white alar speculum, but may be distinguished by its black forehead and much larger white supraloral spot, the latter feature being the only essential character it shares with *A. s. schistaceus*.

*Additional material examined*.—Peru: Maraynioc, 2.

<sup>2</sup> The Higos specimen is incorrectly listed as "the type."

<sup>3</sup> *Atlapetes schistaceus canigenis* Chapman: Similar to *A. s. taczanowskii* in color of pileum and in the absence of a white alar speculum, but without black on the forehead, and differs, furthermore, from all other members of the group by lacking the white malar streak, as well as the black mystacial stripe, these parts being nearly uniform dark gray. There is no trace of a white supraloral spot, the whole region between the eye and the base of the bill being deep neutral gray. The under parts appear to be more evenly gray than in *taczanowskii*, more like *A. s. tamae*, and the median portion of the throat is not clear white, but grayish as in

*Atlapetes canigenis* Chapman, Bull. Amer. Mus. N. H., 41, p. 330, Sept., 1919  
—Torontoy, Urubamba Canyon, Peru (type in U. S. National Museum);  
idem, Bull. U. S. Nat. Mus., 117, p. 113, 1921—Torontoy, above Torontoy,  
and Ocobamba Valley.

**Range.**—Humid Temperate zone of southeastern Peru (Urubamba Valley, Dept. Cuzco).

**Atlapetes tricolor<sup>1</sup> tricolor** (Taczanowski). TRICOLORED  
ATLAPETES.

*Buarremon tricolor* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 516, pl. 65  
—Chilpes,<sup>2</sup> Paltaypampa, Ninabamba, Pumamarca, and "Tempobata,"  
Dept. Junín, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman  
and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 176, 1927);  
Sclater, Cat. Bds. Brit. Mus., 11, p. 269, pl. 16, 1886—Pumamarca and  
"Tambapata," Peru.

*Arremon rufinucha* (not *Embernagra rufinucha* Lafresnaye and d'Orbigny)  
Tschudi, Arch. Naturg., 10, (1), p. 289, 1844—Peru (crit.); idem, Unters.  
Faun. Peru., Orn., p. 212, 1846—hot wood region between 8° and 9°  
latitude south, Peru.

*Carenochrous tricolor* Taczanowski, Orn. Pér., 2, p. 525, 1884—Peru (Chilpes,  
Paltaypampa, Ninabamba, Pumamarca, Tambopata).

*Pipilopsis tricolor* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896,  
p. 347—Garita del Sol, Vitoc, Peru.

*Atlapetes tricolor* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1100,  
1912—central Peru.

**Range.**—Subtropical zone of central Peru, in Dept. Junín.

**Atlapetes tricolor crassus** Bangs.<sup>3</sup> NORTHERN TRICOLORED  
ATLAPETES.

the Tamá race. In opposition to all other races, the inner margin at the base of the remiges is dingy pinkish buff instead of pure white. One specimen shows, in the mystacial region, a few blackish dots. Wing, 75, (female) 73; tail, 75–76.

**Material examined.**—Peru: Torontoy, 2.

<sup>1</sup> *Atlapetes tricolor*, a very peculiar species, cannot be confused with any other member of the genus. The color of the pileum varies from empire yellow through light cadmium to ochraceous-orange, and that of the back from olive-citrine and deep olive to dark olive.

**Material examined.**—Peru, Dept. Junín: Rumicruz, 2; Chelpe, 2; Garita del Sol, 1.

<sup>2</sup> Chilpes designated as type locality by Berlepsch (1912, p. 1100).

<sup>3</sup> *Atlapetes tricolor crassus* Bangs: Exceedingly close to the nominate race, but with larger, heavier bill; pileum duller, varying from old gold to pale tawny olive; back as a rule blacker, apparently never olive; chest and sides more strongly washed with olive. Wing, 77–80; tail, 78–79; bill, 15.

The color-characters being very nearly bridged by individual variation, the larger, stouter bill seems to be the only absolutely constant distinction.

**Material examined.**—Colombia: San Pablo, Prov. Tuqueres, 1; Ricaurte, 1; Buena Vista, Nariño, 1.—Ecuador: Mindo, 2.

*Atlapetes crassus* Bangs, Proc. Biol. Soc. Wash., 21, p. 161, 1908—San Antonio, western Andes, Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 392, 1930); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1100, 1912—western Colombia (San Antonio, San Pablo); Chapman, Bull. Amer. Mus. N. H., 36, p. 577, 1917—Ricaurte and Buena Vista, Nariño, Colombia.

*Atlapetes tricolor crassus* Chapman, Bull. Amer. Mus. N. H., 55, p. 634, 1926—Mindó and La Chonta, Ecuador (crit.).

*Range*.—Tropical and Subtropical zones of western Ecuador (Mindó, La Chonta) and extreme southwestern Colombia (Ricaurte and Buena Vista, Nariño; San Pablo, Prov. Tuqueres).

***Atlapetes flaviceps* Chapman.<sup>1</sup> YELLOW-CROWNED ATLAPETES.**

*Atlapetes flaviceps* Chapman, Bull. Amer. Mus. N. H., 31, p. 162, July, 1912—Rio Toché, Quindío Trail, central Andes, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 574, pl. 40, 1917—Rio Toché.

*Range*.—Subtropical zone of the central Andes, Colombia (known only from the Rio Toché, Magdalena drainage).

**\**Atlapetes semirufus semirufus* (Boissonneau). RUFOUS-BREASTED ATLAPETES.**

*Tanagra (Arremon) semirufus* Boissonneau, Rev. Zool., 3, p. 69, 1840—Santa Fé de Bogotá, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 392, 1930).

*Pipilopsis semirufus* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—Bogotá; Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá.

*Buarremon semirufus* Sclater, Proc. Zool. Soc. Lond., 24, p. 88, 1856—part, Bogotá (monog.); idem, Cat. Coll. Amer. Bds., p. 92, 1862—Bogotá; idem, Cat. Bds. Brit. Mus., 11, p. 269, 1886—part, spec. g-m, Bogotá.

<sup>1</sup> *Atlapetes flaviceps* Chapman: "Crown chrome-yellow with an olivaceous tinge; a dull olive-green postocular streak joining its fellow on the hind neck; sides of the head chrome-yellow extending to a narrow nuchal collar; back, rump, and upper tail coverts dark olive-green; tail strongly graduated, fuscous, all but the outer pair of feathers externally margined with olive-green; wings and their coverts fuscous margined externally with olive-green, the outer webs of the outer primary whitish; the inner margin of the inner webs of all the wing-quills white, increased in extent from the outer primary inwardly; under parts rich chrome-yellow; sides, flanks, thighs, crissum, and under tail coverts olivaceous; feet and bill brownish black. Wing (male), 72; tail, 82; bill, 14." (Chapman, l.c.)

The only specimen that we have seen is a female from the type locality. The pale brown lower mandible and the acutely pointed rectrices, together with its unfinished coloration, clearly show it to be a young bird. Even the type, according to Chapman's description, appears to be immature, and until specimens in adult plumage come to hand it will be difficult to say anything definite about its affinities and specific characters.

*Atlapetes semirufus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1100, 1912—Bogotá; Chapman, Bull. Amer. Mus. N. H., 36, p. 577, 1917—Choachi and Quetame, eastern Andes, Colombia.

*Range*.—Temperate and arid Subtropical zones of the eastern Andes of Colombia (Bogotá region).<sup>1</sup>

2: Colombia (Bogotá, 2).

***Atlapetes semirufus majusculus* Todd.<sup>2</sup> GREATER RUFOUS-BREASTED ATLAPETES.**

*Atlapetes semirufus majusculus* Todd, Proc. Biol. Soc. Wash., 32, p. 113, June, 1919—Peña Blanca, Santander, Colombia (type in Carnegie Museum).

*Range*.—Temperate zone of the eastern Andes of Colombia, in State of Santander (Peña Blanca).

**\**Atlapetes semirufus denisei* (Hellmayr).<sup>3</sup> DENISE'S ATLAPETES.**

*Buarremon semirufus denisei* Hellmayr, Rev. Franç. d'Orn., 2, No. 22, p. 24, 1911—Andes inland of Cumaná [Sucre], Venezuela (type in Munich Museum); Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 66, 1912—Cumbre de Valencia, Carabobo (crit.).

*Pipilopsis semirufa* (not *Tanagra semirufus* Boissonneau) Cabanis, Mus. Hein., 1, p. 139, 1851—Caracas.

*Buarremon semirufus* Sclater, Proc. Zool. Soc. Lond., 24, p. 89, 1856—part, "Cumaná," Venezuela; Sclater and Salvin, l.c., 1868, p. 167—Caracas; Sclater, Cat. Bds. Brit. Mus., 11, p. 269, 1886—part, spec. a-f, Venezuela (Caracas and "Puerto Cabello").

*Atlapetes semirufus denisei* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1100, 1912—Venezuela ("Puerto Cabello," Cumbre de Valencia, Caracas, "Cumaná"); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 204, 1924—Galipán and Silla de Caracas, Venezuela (crit.); Chapman, Amer. Mus. Novit., 191, p. 11, 1925—Carapas and Neverí, northeastern Venezuela.

<sup>1</sup> *Additional material examined*.—Colombia: Bogotá, 10.

<sup>2</sup> *Atlapetes semirufus majusculus* Todd: "Similar to *A. s. semirufus*, of the Bogotá region, but averaging slightly larger and much paler throughout; throat tinged with yellowish; back, wing-and-tail edgings, and flanks lighter olive-green; breast and sides paler, aniline yellow instead of raw sienna. Wing (adult female), 78; tail, 81; bill, 13½." (Todd, l.c.)

Evidently a northern representative which diverges in coloration even farther from the Venezuelan race than does the nominate form.

<sup>3</sup> *Atlapetes semirufus denisei* (Hellmayr): Differs from *A. s. semirufus* by more intense coloration of the rufous parts of the plumage; pileum and nape darker orange-rufous, passing into Sandford's brown on sides of the head and chin; throat and breast much deeper, between raw sienna and Sudan brown, the former without any yellowish suffusion; back brighter and greener, dark citrine rather than dull olive. Wing, 70–76, (female) 66–70; tail, 70–77, (female) 65–70; bill, 13½–15.—The localities "Puerto Cabello" and "Cumaná" are without doubt inexact.

*Additional material examined*.—Venezuela: Andes of Cumaná, 6; Galipán, Cerro del Avila, 20; Silla de Caracas, 2; Cumbre de Valencia, Carabobo, 6.

*Range*.—Subtropical zone of northern Venezuela, from the hinterland of Cumaná west to Trujillo.

18: Venezuela (Mount Turumiquire, 15; Maracay, Aragua, 1; Guamito, Trujillo, 2).

**Atlapetes fulviceps** (Lafresnaye and d'Orbigny).<sup>1</sup> BOLIVIAN MOUNTED ATLAPETES.

*Emberiza fulviceps* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, pl. 2, p. 77, 1837—"Tacora" [=Tотора], Bolivia (types in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 362, pl. 46, fig. 2, 1844—near Tотора, Prov. Mizque, Bolivia.

*Pipilopsis fulviceps* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—Bolivia.

*Buarremon fulviceps* Sclater, Proc. Zool. Soc. Lond., 24, p. 88, 1856—Prov. Mizque, Bolivia (monog.); Sclater and Salvin, l.c., 1879, p. 603—Bolivia (Tотора, Mizque; Tilotilo, Yungas); Taczanowski, Orn. Pér., 2, p. 532, 1884—"Tacna"—Tотора, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 270, 1886—Tilotilo, Bolivia; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 7, 1897—Lesser, Salta, Argentina.

*Atlapetes fulviceps* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 396, 1910—Lesser, Salta; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1101, 1912—Bolivia ("Tacora," Tilotilo, Santa Ana).

*Range*.—Subtropical zone of Bolivia and extreme northwestern Argentina (San Francisco, Cerro de Calilegua, Dept. Valle Grande, Jujuy; Lesser, Salta).

**\*Atlapetes personatus<sup>2</sup> personatus** (Cabanis). RORAIMA ATLAPETES.

*Arremon personatus* Cabanis,<sup>3</sup> in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 678, 1849—Roraima, alt. 6,500 ft., British Guiana (type in Berlin Museum).

*Pipilopsis personatus* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—Guiana.

*Buarremon personatus* Sclater, Proc. Zool. Soc. Lond., 24, p. 89, 1856—Roraima (monog.); Salvin, Ibis, 1885, p. 212—Roraima; Sclater, Cat. Bds. Brit. Mus., 11, p. 270, 1886—Roraima.

<sup>1</sup> *Atlapetes fulviceps* (Lafresnaye and d'Orbigny), a little known species with very slender bill, seems to be nearly related to the section comprising *A. semirufus* and *A. personatus*.

Birds from Argentina are identical with a small Bolivian series.

*Material examined*.—Bolivia: Tотора, Prov. Mizque, 2; Santa Ana, Prov. Valle Grande, 1; Rio Bermejo, Chuquisaca, 1; unspecified, 1.—Argentina: San Francisco, Cerro de Calilegua, Dept. Valle Grande, Jujuy, 2.

<sup>2</sup> *Atlapetes personatus* is possibly conspecific with *A. fulviceps*, as has been suggested by Chapman. Unfortunately, the latter species is at present not available for direct comparison.

<sup>3</sup> Nomen nudum in Schomburgk, Reisen Brit. Guiana, 2, p. 269, 1848.



*Atlapetes personatus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1101, 1912—Roraima; Chubb, Bds. Brit. Guiana, 2, p. 471, 1921—Roraima; Chapman, Bull. Amer. Mus. N. H., 63, p. 123, 1931—Roraima.

*Range*.—Subtropical zone of Mount Roraima, on the confines of British Guiana and Venezuela.<sup>1</sup>

1: British Guiana (Roraima, 1).

***Atlapetes personatus duidae* Chapman.<sup>2</sup> DUIDA ATLAPETES.**

*Atlapetes duidae* Chapman, Amer. Mus. Novit., 380, p. 26, Oct., 1929—Cerro de Savanna, tableland of Mount Duida, Venezuela (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 63, p. 123, 1931—Mount Duida.

*Range*.—Subtropical zone of Mount Duida, southern Venezuela.

**\**Atlapetes citrinellus* (Cabanis). YELLOW-STRIPED ATLAPETES.**

*Buarremon (Atlapetes) citrinellus* Cabanis, Journ. Orn., 31, p. 109, pl. 1, fig. 2, 1883—near Chaquevil and San Xavier, Tucumán (type in Berlin Museum).

*Buarremon citrinellus* Sclater, Cat. Bds. Brit. Mus., 11, p. 270, 1886—Tucumán; Sclater and Hudson, Arg. Orn., 1, p. 41, 1888—Tucumán; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 176, 1902—mountains of Tucumán; Baer, Ornith., 12, p. 216, 1904—Lagunita, Tucumán; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 41, 1905—mountains of Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 172, pl. 2, fig. 23 (egg), 1909—Malamalá, Tafi Viejo, Villa Nougues, and Lagunita, Tucumán (eggs descr.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 409, 1926—Sierra San Javier, above Tafi Viejo, Tucumán (crit.).

*Atlapetes citrinellus* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 396, 1910—Tucumán and western Salta; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1101, 1912—Andes of Tucumán; Dinelli, El Hornero, 1, p. 67, 1918—cerros of Tucumán (habits, nest, and eggs); Bertoni, l.c., 3, p. 279, 1924—Rio Aguarañ-guasú, northern Paraguay (April, 1920); Smyth, l.c., 4, p. 147, 1928 (eggs descr.).

*Range*.—Subtropical zone of northwestern Argentina, in states of Tucumán and Salta; (?)accidental in northern Paraguay (one record from the Rio Aguarañ-guasú).

11: Argentina (Concepción, Tucumán, 6; Anfama, Tucumán, 2; Tafi Viejo, Tucumán, 2; Lagunita, Tucumán, 1).

<sup>1</sup> *Material examined*.—Mount Roraima, 9.

<sup>2</sup> *Atlapetes personatus duidae* Chapman: Similar in form and size to *A. p. personatus*, but rufous of head much darker, chestnut instead of Sandford's brown, and extended all over the throat and chest; back, wings, and tail deep black instead of iron gray; middle of breast and abdomen somewhat brighter yellow; sides and flanks deeper, dark citrine rather than yellowish olive. Wing, 80–82, (female) 75–76; tail, 78–80; bill, 14–15.

Though strongly marked, *A. p. duidae* is clearly conspecific with the Roraima *Atlapetes*, since various individuals of the latter show some scattered rufous streaks or spots in the yellow of the throat and chest.

*Material examined*.—Venezuela: Mount Duida, 5.

**Atlapetes pallidiceps** (Sharpe).<sup>1</sup> AZUAY ATLAPETES.

*Buarremon pallidiceps* Sharpe, Bull. Brit. Orn. Cl., 11, p. 2, Oct., 1900—"Oña," Ecuador (type, from Guishapa, Oña, Prov. Azuay, in British Museum, examined).

*Pogonospiza pallidiceps* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1108, 1912—Oña, Ecuador (ex Sharpe).

*Range*.—Arid Subtropical zone of southern Ecuador (Guishapa, Oña, Prov. Azuay).

**Atlapetes albiceps** (Taczanowski).<sup>2</sup> WHITE-HEADED ATLAPETES.

*Buarremon albiceps* Taczanowski, Orn. Pér., 2, p. 533, 1884—Paucal, Dept. Cajamarca, Peru (type in Raimondi Collection, now in Lima Museum).

*Pogonospiza albiceps* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1108, 1912—Paucal, Peru; Chapman, Bull. Amer. Mus. N. H., 55, p. 636, 1926—Casanga, Ecuador, and Paletillas (Piura), Peru (crit.).

*Range*.—Arid Tropical and Subtropical zones of southwestern Ecuador (Casanga, Prov. Loja) and northwestern Peru (Paletillas, Piura; Paucal, Cajamarca).

**\*Atlapetes nationi nationi** (Sclater). NATION'S ATLAPETES.

*Pipilo mystacalis* (not *Buarremon mystacalis* Taczanowski) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 521—Ninarupa, Dept. Junín, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 176, 1927).

*Buarremon nationi* Sclater, Proc. Zool. Soc. Lond., 1881, p. 485, pl. 46—western Cordillera of Peru above Lima (type in coll. of P. L. Sclater, now in British Museum, examined); Taczanowski, Orn. Pér., 2, p. 533, 1884—Ninarupa and Andes above Lima.

*Pyrgisoma nationi* Sharpe, Cat. Bds. Brit. Mus., 12, p. 736, 1888—western Cordillera of Peru.

<sup>1</sup> *Atlapetes pallidiceps* (Sharpe) appears to be perfectly distinct, though it may prove to be conspecific with *A. albiceps*, which unfortunately is not available for comparison. The three specimens secured by P. O. Simons in May near Oña (alt. 6,000 ft.) are very much alike and differ from a series of *A. n. nationi* by decidedly slenderer, basally more constricted bill and much shorter, slenderer tarsi. The coloration, too, is quite different. The top and sides of the head are dingy white to pale smoke gray with a pale brown streak through the eye, a brown spot on the forehead, and some brownish mottling on the hind crown; back and wing coverts lighter, more brownish; an extensive alar speculum white; entire under surface milky white, only the inner flanks shaded with smoke gray and the under tail coverts with pale buffy. Wing (males), 76, 77, 81; tail, 78, 78, 84; bill, 15–16.

*A. albiceps*, according to Taczanowski, resembles *A. nationi* on the under parts, but like *A. pallidiceps* has a white alar speculum.

<sup>2</sup> *Atlapetes albiceps* (Taczanowski) is probably but a northern representative of Nation's *Atlapetes*, its chief distinguishing character being the partly white pileum, the presence of a white alar speculum, and the shorter tail. While in typical *nationi* the ground color is dark brown, the presence of a varying number of intermixed white feathers on the head strongly suggests close affinity.

*Buarremon matucanensis* Brabourne and Chubb, Bull. Brit. Orn. Cl., **35**, p. 20, Nov., 1914—Matucana, above Lima, Peru (type in British Museum examined).

*Atlapetes nationi nationi* Zimmer, Field Mus. Nat. Hist., Zool. Ser., **17**, p. 477, 1930—Matucana, Peru (crit.).

*Pogonospiza mystacalis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1108, 1912—Peru (Ninarupa, Junín; "Lima").

*Range*.—Arid Subtropical and Temperate zones of western Peru, in depts. of Lima and Junín.<sup>1</sup>

3: Peru (Matucana, Lima, 3).

**Atlapetes nationi brunneiceps** (Berlepsch and Stolzmann).<sup>2</sup>  
BROWN-HEADED ATLAPETES.

*Pogonospiza mystacalis brunneiceps* Berlepsch and Stolzmann, Ornith., **13**, p. 67, Sept., 1906—Pauza and Coracora, Dept. Ayacucho, Peru (type, from Pauza, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., **6**, p. 177, 1927); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1108, 1912—Ayacucho (Pauza, Coracora).

*Range*.—Arid Subtropical and Temperate zones of southwestern Peru (Pauza and Coracora, Dept. Ayacucho).

**\*Atlapetes brunnei-nucha brunnei-nucha** (Lafresnaye).  
CHESTNUT-CAPPED ATLAPETES.

*Embernagra brunnei-nucha* Lafresnaye, Rev. Zool., **2**, p. 97, 1839—Mexico (type in coll. of C. Brelay, Bordeaux).<sup>3</sup>

<sup>1</sup> We have no material from Junín, but birds from Lima (*nationi-matucanensis*) agree perfectly with Sclater's description and figure. The number of white feathers on top and sides of the head varies considerably in different individuals from the same locality. Specimens from Lima measure as follows: wing, 77 (female) to 87 (male); tail, 76–88; bill, 15–16.

*Additional material examined*.—Peru, Dept. Lima: Matucana, 2; Andes above Lima, 2; San Mateo, 2; Surco, 2.

<sup>2</sup> *Atlapetes nationi brunneiceps* (Berlepsch and Stolzmann): Similar to *A. n. nationi*, but above much paler; pileum lighter and more reddish, snuff brown rather than mummy brown; lores, cheeks, and auriculars much less blackish, hair brown instead of clove brown, with a varying amount of white feathers; back, wing coverts, and rump light hair brown rather than between mouse gray and deep mouse gray; chin spot, though not larger, more solidly black; malar stripe and throat decidedly buffy instead of nearly pure white; gray of chest on average paler. Wing, 81–87; tail, 78–87; bill, 15–16½.

This seems to be a good race. Though the color of the pileum varies to some extent, Ayacucho birds, when compared to a small series from Matucana, have the head conspicuously paler, less blackish, and differ by several other minor characters. I fail, however, to find any divergency in the length of the bill.

*Material examined*.—Peru: Coracora, 5.

<sup>3</sup> Bangs (Bull. Mus. Comp. Zool., **70**, p. 393, 1930) lists a specimen from "Bogotá" in the Lafresnaye Collection as type. However, this can hardly be correct, since Lafresnaye described the species from a Mexican example in the collection of Charles Brelay at Bordeaux.

*Tanagra (Embernagra) brunnei-nucha* Boissonneau, Rev. Zool., 3, p. 68, 1840—Santa Fé de Bogotá.

*Arremon frontalis* Tschudi, Arch. Naturg., 10, (1), p. 289, 1844—Peru (type in Neuchâtel Museum); idem, Unters. Faun. Peru., Orn., p. 212, pl. 19, fig. 2, 1846—eastern wood region between 8° and 9° lat. south and Jaen de Bracamoras, Peru.

*Buarremon brunneinucha(us)* Bonaparte, Consp. Gen. Av., 1, (2), p. 484, 1850—Mexico, Colombia, and Peru; Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 85, 1856—part, Mexico, Guatemala, Bogotá, and Peru (monog.); idem, l.c., 26, pp. 72, 303, 1858—Rio Napo, Ecuador, and La Parada, Oaxaca, Mexico; idem, l.c., 27, pp. 364, 377, 1859—vicinity of Jalapa, Vera Cruz, and Teotalcingo, Oaxaca, Mexico; Sclater and Salvin, Ibis, 1859, p. 15—Guatemala; Cabanis, Journ. Orn., 8, p. 414, 1860—Costa Rica; Sclater, Cat. Coll. Amer. Bds., p. 90, 1862—Bogotá, Jalapa, and Guatemala; idem, Proc. Zool. Soc. Lond., 1864, p. 174—Valley of Mexico; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 170—Dota, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1867, p. 140—Santiago and Cordillera de Tolé, Veraguas; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 101, 1868—Costa Rica (San José, Turrialba, Dota, Grécia); Frantzius, Journ. Orn., 17, p. 300, 1869—Costa Rica; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 549, 1869—temperate and alpine regions of Vera Cruz; Salvin, Proc. Zool. Soc. Lond., 1870, p. 189—Calovévora, Veraguas, and Volcan de Chiriquí; Taczanowski, l.c., 1874, p. 515—Ropaybamba, Peru; Boucard, l.c., 1878, p. 56—Costa Rica (Cartago, Navárrro, Rancho Redondo); Taczanowski, l.c., 1879, p. 228—Tambillo, Peru; Sclater and Salvin, l.c., 1879, p. 504—Concordia, Medellín, and Santa Elena, Colombia (eggs descr.); Taczanowski, l.c., 1880, p. 197—Cutervo, Peru; idem, l.c., 1882, p. 15—Tamiapampa, Peru; Nutting, Proc. U. S. Nat. Mus., 5, p. 495, 1882—Irazú, Costa Rica (habits); Taczanowski, Orn. Pér., 2, p. 529, 1884—Peruvian localities; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 319, 1884 (excl. Venezuela); Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 84—Machay and Mapoto, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 258, 1886—part, spec. a-m, p-w, Mexico (Jalapa), Guatemala (Volcan de Fuego, Vera Paz), Costa Rica (Dota, Irazú), Veraguas (Santiago, Cordillera de Tolé, Calovévora), Panama (Volcan de Chiriquí), Colombia ("Bogotá," Santa Elena, "Pasto"), and Ecuador (Rio Napo); Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 141, 1886—Jalapa, Vera Cruz; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Costa Rica (Cartago, El Zórcero de Alajuéla, Santa Maria de Dota, Volcan de Irazú, Rio Sucio); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 347—Garita del Sol, Peru; Chapman, Bull. Amer. Mus. N. H., 10, p. 28, 1898—Jalapa, Vera Cruz; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 20, 1899—La Concepción and Niebli, Ecuador; Goodfellow, Ibis, 1901, p. 470—western Corazón, Ecuador; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 465, 1901 (monog., excl. of Venezuela); Bangs, Proc. New Engl. Zool. Cl., 3, p. 69, 1902—Boquete and Volcan de Chiriquí; Berlepsch and Stolzmann, Ornith., 13, pp. 83, 111, 1906—Idma and Rio Cadena, Dept. Cuzco, Peru; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 218, 1907—above

Tecpam, Guatemala; Carriker, Ann. Carnegie Mus., 6, p. 898, 1910—highlands of Costa Rica (descr. of immature, nest, and eggs); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1117—Pueblo Rico, Colombia; Ménégau, Rev. Franç. d'Orn., 2, p. 9, 1911—Cueva Seca, Peru; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 470, 1912—part, Mexico to Peru; Piguet, Mém. Soc. Neuchât. Sci. Nat., 5, p. 808, 1914—Medellin, Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 577, 1917—Las Lomitas, San Antonio, Gallera, Cerro Munchique, La Florida, Ricaurte, Miraflores, Salento, Santa Elena, El Eden, La Candela, La Sierra, Andalucía, Fusugasugá, and Buena Vista, Colombia; idem, Bull. U. S. Nat. Mus., 117, p. 114, 1921—Idma, San Miguel Bridge, and Torontoy, Urubamba, Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 80, 1922—road to Nanegal, Ecuador; Chapman, Bull. Amer. Mus. N. H., 48, p. 246, 1923 (monog., excl. of Venezuela); idem, l.c., 55, p. 635, 1926—Mindó, Santa Rosa, El Chiral, Zaruma, Salvias, Zamora, Macas region, lower Sumaco, San José de Sumaco, lower Sardinias, Baeza, and below Oyacachi, Ecuador; Griscom, l.c., 64, p. 370, 1932—Volcan San Lucas and Tecpam, Guatemala; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 241, 1932—Mera, Rio Pastaza, Ecuador; Griscom, Bull. Mus. Comp. Zool., 75, p. 421, 1934—Chilpancingo, Guerrero; idem, l.c., 78, p. 382, 1935—Panama.

*Buarremon brunneinuchus brunneinuchus* Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 485, 1927—Presidio and Motzorongo, Vera Cruz.

*Atlapetes brunneinucha* Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 341, 1932—San Juancito, Honduras.

*Range*.—Subtropical zone of southern Mexico (in states of Vera Cruz, Mexico, Oaxaca, Guerrero, and Chiapas) and south through Central America to Colombia (excepting Santa Marta region), Ecuador (excepting the Chimbo-Chanchan river system), and Peru.<sup>1</sup>

26: Mexico (Misantla, Vera Cruz, 1); Honduras (mountains west of San Pedro, 1); Guatemala (San Marcos, Volcan de Tajumulco, 8; Santa Elena, Chimaltenango, 2; near Tecpam, 3); Costa Rica (Volcan de Irazú, 1; Volcan de Turrialba, 3); Panama (Boquete, Chiriquí, 1); Colombia (Páramo de Tamá, 2; San Antonio, Cauca, 1; Rio Lima, 1; Bogotá, 2).

\**Atlapetes brunnei-nucha xanthogenys* (Cabanis).<sup>2</sup> VENEZUELAN CHESTNUT-CAPPED ATLAPETES.

<sup>1</sup> Like Dr. Chapman, I am unable to separate South American birds from those of Mexico, Guatemala, and Honduras, though they may have—on average—slightly less grayish suffusion underneath.

*Additional material examined*.—Mexico: Vera Cruz (Jalapa, Orizaba), 4.—Honduras: San Pedro, 2; Volcan de Puca, 2.—Costa Rica: Villa Quesada, 2.—Panama: Volcan de Chiriquí, 5.—Colombia: Pueblo Rico, 1; "Bogotá," 10.—Ecuador: Mindó, 1; Baños, 2; Corazón, 3.—Peru: Garita del Sol, 1; Santa Ana, 1; Rio Cadena, 1; Chuhuasi, near Ollachea, Carabaya, 4.

<sup>2</sup> *Atlapetes brunnei-nucha xanthogenys* (Cabanis) differs from the nominate race by longer, slenderer bill and whiter under parts, the grayish suffusion below the black jugular band and on the sides of the body being more restricted.

This form is perhaps not worthy of recognition. Although large series from Venezuela are very constant in their characters, certain Colombian and Peruvian

*Buarremon xanthogenys* Cabanis, Mus. Hein., 1, p. 141, Oct., 1851—Caracas, Venezuela (type in Heine Collection, now in Municipal Museum, Halberstadt, Germany).

*Buarremon brunneinuchus*(a) (not *Embernagra brunnei-nucha* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 85, 1856—part, Caracas; Sclater and Salvin, l.c., 1868, p. 627—Caracas; idem, l.c., 1875, p. 234—upper wood region of Mérida, Venezuela; Sclater, Cat. Bds. Brit. Mus., 11, p. 258, 1886—part, spec. n, o, Mérida and Caracas, Venezuela; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 465, 1901—part, Venezuela; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1102, 1912—part, Venezuela ("Puerto Cabello," Caracas, Mérida); Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 66, 1912—Cumbre de Valencia, Carabobo (crit.); Chapman, Bull. Amer. Mus. N. H., 48, p. 246, 1923—part, Venezuela.

*Buarremon brunneinucha xanthogenys* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 203, 1924—Galipán and Silla de Caracas, Venezuela (crit.).

*Range.*—Subtropical zone of Venezuela, from the Caracas region west to Mérida.

1: Venezuela (Mérida, 1).

# **Atlapetes brunnei-nucha inornatus** (Sclater and Salvin).<sup>1</sup> WHITE-BREASTED ATLAPETES.

*Buarremon inornatus* Sclater and Salvin, Ibis, (4), 3, p. 427, 1879—Pallatanga and "Jima," Ecuador (type, from Pallatanga, in coll. of P. L. Sclater, now in British Museum, examined); Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 291—Cayandeled, Ecuador (spec. examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 259, 1886—Pallatanga and "Jima"; Chapman, Bull. Amer. Mus. N. H., 48, p. 253, 1923—Chimbo-Chanchan river system of western Ecuador (monog.); idem, l.c., 55, p. 635, 1926—Pagma Forest, junction of Chanchan and Chiguancay, Rios Coco and Chimbo, and Pallatanga.

specimens cannot be distinguished in color, and even the shape of the bill is largely bridged by individual variation.

*Additional material examined.*—Venezuela: Galipán, Cerro del Avila, 14; Silla de Caracas, 4; Cumbre de Valencia, Carabobo, 19; Mérida region (El Valle, Culata, etc.), 10.

<sup>1</sup> *Atlapetes brunnei-nucha inornatus* (Sclater and Salvin): Similar to *A. b. brunnei-nucha*, but somewhat smaller; the under parts whiter (more like *A. b. xanthogenys*), and the black pectoral band either absent or but faintly suggested laterally. Wing (male), 74–78; tail, 72–75.

This is clearly a local race of *A. brunnei-nucha* with a peculiarly restricted range in the Chimbo-Chanchan river system. Dr. Chapman has so exhaustively dealt with its affinities and variation that we need not dwell on this subject further. The specimen from Cayandeled, which we have examined in the Berlepsch Collection, has a rather white belly and just a few half-concealed black spots on the sides of the chest, being thus *inornatus* as to color-characters. In dimensions (wing, 82; tail, 79), however, it agrees with *brunnei-nucha*, and it is hard to say whether it should be classed as a mutational variant of the nominate race, or as an exceptionally large individual of *inornatus*.

*Material examined.*—Ecuador: Pallatanga, 2; Porvenir, 1; Cayandeled, 1.

*Buarremon brunneinuchus* (not *Embernagra brunnei-nucha* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 27, p. 138, 1859—Pallatanga.

*Buarremon brunneinucha inornatus* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1102, 1912—western Ecuador.

*Range*.—Subtropical zone in the Chimbo-Chanchan river system of western Ecuador, in provinces of Chimborazo (Pallatanga; Cayandeled; junction of Chanchan and Chiguancay rivers; Pagma Forest; Rio Chimbo) and Bolívar (Porvenir).

***Atlapetes torquatus virenticeps* (Bonaparte).<sup>1</sup> GREEN-STRIPED ATLAPETES.**

*Buarremon virenticeps* Bonaparte, Compt. Rend. Acad. Sci. Paris, 41, p. 657, 1855—Mexico (location of type not stated); Sclater, Proc. Zool. Soc. Lond., 24, p. 85, 1856—Mexico (monog.); idem, Cat. Coll. Amer. Bds., p. 90, 1862—Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 319, 1884—southern Mexico; Sclater, Cat. Bds. Brit. Mus., 11, p. 257, 1886—La Puebla, Puebla; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 467, 1901—southern Mexico (monog.); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1103, 1912—southern Mexico; Chapman, Bull. Amer. Mus. N. H., 48, p. 266, 1923—southern Mexico (crit.).

*Range*.—Southern parts of Mexican tableland, in states of Jalisco (San Sebastian),<sup>2</sup> Michoacan (Patzcuaro), Morelos (Huitzilac), Puebla (La Puebla), Mexico (Amecameca, City of Mexico), and Guanajuato.<sup>3</sup>

**\**Atlapetes torquatus costaricensis* (Bangs).<sup>4</sup> COSTA RICAN ATLAPETES.**

*Buarremon costaricensis* Bangs, Auk, 24, p. 310, 1907—Boruca, Barranca, and Lagarto, Costa Rica (type, from Boruca, in coll. of E. A. and O. Bangs,

<sup>1</sup> *Atlapetes torquatus virenticeps* (Bonaparte), though readily distinguished from the more southern forms by greenish-yellow postocular streak, decidedly grayish breast, and yellowish green posterior portion of the median crown-stripe, is clearly the northern representative of the *torquatus-assimilis* group, in which certain primitive characters have been retained. Its resemblance to the juvenile plumage of *costaricensis* and *assimilis* is strongly suggestive of this explanation.

<sup>2</sup> Specimens from Jalisco (Sierra Nevada de Colima) have the supra-auricular stripe frequently, though not always, somewhat brighter and more yellowish. They have been named *Buarremon virenticeps colimae* van Rossem (Bull. Brit. Orn. Cl., 58, p. 125, July 13, 1938).

<sup>3</sup> An additional race has been described from north of Santa Lucia, Sinaloa, northwestern Mexico, as *B. virenticeps verecundus* Moore (Proc. Biol. Soc. Wash., 51, p. 70, May 19, 1938).

<sup>4</sup> *Atlapetes torquatus costaricensis* (Bangs): Closely similar to *A. t. assimilis*, but with larger (both longer and stouter) bill; the white marking at the base of the bill usually absent, and the supraloral streak gray instead of white. Wing, 81–86, (female) 78–81; tail, 76–80, (female) 72–75; bill, 18–19.

Nine specimens from Boruca, Costa Rica, examined.

No representative of this group has yet been found in the countries between southern Mexico and southwestern Costa Rica.

now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 393, 1930); Carriker, Ann. Carnegie Mus., 6, p. 897, 1910—Pózo Azul de Pirris, El General de Térraba, and Boruca, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1103, 1912—Costa Rica.

*Buarremon assimilis costaricensis* Chapman, Bull. Amer. Mus. N. H., 48, p. 263, 1923—Costa Rica (crit.).

*Buarremon assimilis*(?) (not *Tanagra assimilis* Boissonneau) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 101, 1868—Guaitil, Costa Rica (crit.); Frantz, Journ. Orn., 17, p. 300, 1869—Costa Rica; Salvin, Ibis, 1874, p. 308—Costa Rica (crit.).

*Buarremon assimilis* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 318, 1884—part, Guaitil, Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 257, 1886—part, Costa Rica; Cherrie, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 139, 1893—Boruca and Buenos Aires, Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 468, 1901—part, Costa Rica.

*Range*.—Subtropical zone of southwestern Costa Rica, north to the Rio Grande de Pirris.

3: Costa Rica (Boruca, 2; Buenos Aires, 1).

\**Atlapetes torquatus assimilis* (Boissonneau). BOISSONNEAU'S  
ATLAPETES.

*Tanagra* (Arremon) Vieillot; *Embernagra* Lesson) *assimilis* Boissonneau, Rev. Zool., 3, p. 67, 1840—Santa Fé de Bogotá, Colombia (location of type unknown).<sup>1</sup>

*Buarremon assimilis* Bonaparte, Cons. Gen. Av., 1, (2), p. 484, 1850—Colombia; Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 85, 1856—Bogotá and western declivity of the Andes near Quito (monog.); idem, l.c., 27, p. 441, 1859—Rio Napo, Ecuador; idem, l.c., 28, p. 76, 1860—Lloa, Ecuador; idem, Cat. Coll. Amer. Bds., p. 90, 1862—Bogotá, Venezuela, and "Pallatanga"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 234—Mérida, Venezuela; idem, l.c., 1879, p. 504—Medellin and Santa Elena, Colombia; Taczanowski, l.c., 1880, p. 196—Cutervo and Callacate, Peru; idem, l.c., 1882, p. 15—Chachapoyas, Peru; idem, Orn. Pér., 2, p. 531, 1884—part, Cutervo, Callacate, and Chachapoyas, Peru; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 291—Cechce, Ecuador; idem, l.c., 1885, p. 84—San Rafael, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 257, 1886—Venezuela, Colombia (Bogotá, Medellin), Ecuador (Sical, "Quito"), and Peru (Cutervo, Callacate); Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Nono, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 19, 1899—Pun, "Nanegal," Niebli, and Corazón, Ecuador; Goodfellow, Ibis, 1901, p. 470—Pichincha and Papallacta, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B82, 1911—Pichincha,

<sup>1</sup> Unlike the other species described by Boissonneau in the same paper, the type of the present one does not seem to have passed into the collection of F. de Lafresnaye, since it is not listed by Bangs (Bull. Mus. Comp. Zool., 70, pp. 145–426, 1930).



Alaspungo, and Lloa, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1103, 1912—part, Colombia, Ecuador and Peru (excl. Paucal); Chapman, Bull. Amer. Mus. N. H., 36, p. 577, 1917—west of Popayán, Laguneta, Santa Isabel, Almaguer, El Piñon, and Chipaque, Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 80, 1922—Chiniquil (below Lloa) and below Nono, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Cerro Mojanda and Aluguincho, Ecuador.

*Buarremon assimilis assimilis* Chapman, Bull. Amer. Mus. N. H., 48, pp. 262, 277, 1923—Colombia and Ecuador (monog.); idem, l.c., 55, p. 635, 1926—Ecuador (Hacienda Garzón, near Nono, Yanacocha, Verdecocha, Lloa, Corazón, Oyacachi, below Papallacta, above Baeza, upper Sumaco, and upper Rio Upano).

*Range*.—Temperate zone of Colombia (except Santa Marta region), extreme western Venezuela (Sierra of Mérida), Ecuador (except southwestern section), and northeastern Peru (Cutervo, Callacate, Chachapoyas, Molinopampa).<sup>1</sup>

6: Colombia (Coast Range west of Popayán, Cauca, 1; Bogota, 2); Ecuador (unspecified, 1); Peru (Molinopampa, 2).

***Atlapetes torquatus nigrifrons* (Chapman).<sup>2</sup> BLACK-FRONTED ATLAPETES.**

*Buarremon assimilis nigrifrons* Chapman, Amer. Mus. Novit., 67, p. 11, 1923—Las Piñas, Alamor Mts., Prov. Loja, Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 48, pp. 263, 277, 1923—southern Ecuador and northwestern Peru (crit.);

<sup>1</sup> Two specimens from Culata, Mérida, agree well with a series of Bogotá skins and others from Ecuador. Two birds from Molinopampa, Peru, also resemble those from more northern localities, especially in head-markings, but show some suggestion of a black pectoral band on the extreme sides of the breast. While this feature does not necessarily indicate intergradation to *B. a. poliophrys*, since similar individuals are occasionally also met with in Colombia (we have seen one from Bogotá, and Chapman mentions another from Laguneta), it serves to strengthen the belief that too much importance has been placed on the presence or absence of the black pectoral band. This character certainly is of no more than subspecific value, and we have, therefore, no hesitation in merging *torquatus* and *assimilis* in one specific group.

*Additional material examined*.—Venezuela; Culata, Mérida, 2.—Colombia: Bogotá, 11; west of Popayán, 4; Laguneta, 3; Medellin, 1.—Ecuador: Pichincha, 5; Alaspungo, 1; Lloa, 3; below Nono, 2; Papallacta, 4; Baños, 4.

<sup>2</sup> *Atlapetes torquatus nigrifrons* (Chapman): Similar to *A. t. assimilis*, but gray median crown stripe less extensive, not reaching the forehead, and black lateral stripes correspondingly larger; gray postocular streak less pronounced, sometimes nearly absent; bill slightly longer. Wing, 80–85; tail, 80–86; bill, 17½–18½.

Two specimens from Porto Velo exhibit the racial characters pointed out by Chapman. The reduction of the gray areas on the head seems to suggest an approach to the black-headed *A. atricapillus*. According to Chapman, specimens from Palambla, Pacific slope of the Andes in Piura, Peru, belong to the present race, and it may be assumed that the Paucal bird mentioned by Taczanowski refers here too. On the eastern side of the north Peruvian Andes it is probably replaced by *A. t. assimilis*, though no material has been available from the eastern slope of the western Cordillera (Callacate, Cutervo).

idem, l.c., 55, p. 636, 1926—La Puente, Zaruma, Porto Velo, Punta Santa Ana, Las Piñas, Salvias, Guachanamá, Guainche, Alamor, Cebollal, and Loja, Ecuador.

*Buarremon assimilis* (not *Tanagra assimilis* Boissonneau) Taczanowski, Orn. Pér., 2, p. 531, 1884—part, Paucal, Peru; Berlepsch, Verhandl. 5th Intern. Orn. Kongr. Berlin, p. 1103, 1912—part, Paucal, Peru.

*Range*.—Subtropical zone of southwestern Ecuador and northwestern Peru (Palambla, Piura; Paucal, Libertad).

***Atlapetes torquatus basilicus* (Bangs).<sup>1</sup> SANTA MARTA  
ATLAPETES.**

*Buarremon basilicus* Bangs, Proc. Biol. Soc. Wash., 12, p. 159, 1898—Pueblo Viejo, Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 392, 1930); idem, l.c., 13, p. 104, 1899—Chirua and San Francisco (crit.); Allen, Bull. Amer. Mus. N. H., 13, p. 167, 1900—Valparaíso and El Libano; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1103, 1912—Santa Marta region; Todd and Carriker, Ann. Carnegie Mus., 14, p. 523, 1922—El Libano, Cincinnati, San Lorenzo, Páramo de Mamarongo, Pueblo Viejo, and Heights of Chirua (crit.); Chapman, Bull. Amer. Mus. N. H., 48, pp. 270, 278, 1923—Santa Marta Mountains (monog.).

*Range*.—Subtropical zone of the Santa Marta Mountains, northern Colombia.

***Atlapetes torquatus phaeopleurus* (Sclater). BUFFY-FLANKED  
ATLAPETES.**

*Buarremon phaeopleurus* Sclater, Proc. Zool. Soc. Lond., 24, p. 85, July, 1856—Caracas, Venezuela (type in coll. of P. L. Sclater, now in British Museum); idem, Cat. Coll. Amer. Bds., p. 90, 1862—Venezuela; idem, Cat. Bds. Brit. Mus., 11, p. 256, 1886—Venezuela; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1103, 1912—Venezuela (Monte La Peña and Río Maméra, Caracas); Chapman, Bull. Amer. Mus. N. H., 48, pp. 270, 278, 1923—Caracas region (monog.).

*Buarremon torquatus phaeopleurus* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 202, 1924—Silla de Caracas and Galipán, Venezuela (crit.).

*Range*.—Subtropical zone of north-central Venezuela (Caracas region).<sup>2</sup>

<sup>1</sup> *Atlapetes torquatus basilicus* (Bangs): Closely allied to *A. t. phaeopleurus*, but back more brownish (between olive-citrine and medal-bronze); tail brownish fuscous, not olivaceous; superciliary streak gray, only in supra-loral portion inclining to whitish; flanks and under tail coverts more decidedly brownish. Size about the same.

This race, of which we have examined several specimens from Valparaíso, is merely an intensely colored edition of the Caracas form, though the mainly gray instead of white superciliaries serve to separate it at a glance.

<sup>2</sup> *Material examined*.—Venezuela: Caracas, 2; Silla de Caracas, 1; Galipán, Cerro del Ávila, 2; Monte La Peña, 1; Río Maméra, 1.

**\**Atlapetes torquatus phygas* (Berlepsch).<sup>1</sup> BERLEPSCH'S VENEZUELAN ATLAPETES.**

*Buarremon torquatus phygas* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1102, 1144, Feb., 1912—Los Palmales [Sucre], Venezuela (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined); Chapman, Amer. Mus. Novit., 191, p. 11, 1925—Carapas and Neverí, Venezuela (crit.).

*Buarremon phygas* Chapman, Bull. Amer. Mus. N. H., 48, pp. 271, 278, 1923—Guácharo, Venezuela (monog.).

*Buarremon phaeopleurus exortus* Todd, Proc. Biol. Soc. Wash., 45, p. 219, 1932—La Elvecia, Sucre, Venezuela (type in Carnegie Museum, Pittsburgh).

**Range.**—Upper Tropical and Subtropical zones of northeastern Venezuela, in states of Sucre and Monagas (Los Palmales, El Guácharo, La Elvecia, Carapas, Neverí).

7: Venezuela (Mount Turumiquire, Sucre, 7).

**\**Atlapetes torquatus poliophrys* (Berlepsch and Stolzmann).<sup>2</sup> GRAY-BROWED ATLAPETES.**

*Buarremon poliophrys* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 347—Maraynioc, Dept. Junín, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 176, 1927); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1103, 1912—Culumachay and Tambo de Aza, Maraynioc; Chapman, Bull. Amer. Mus. N. H., 48, pp. 271, 278, 1923—Maraynioc (monog.).

*Buarremon torquatus poliophrys* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 475, 1930—mountains near Huánuco and Pano, Peru (crit.).

*Buarremon torquatus* (not *Embernagra torquata* Lafresnaye and d'Orbigny) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 515—Maraynioc; idem, Orn. Pér., 2, p. 530, 1884—Maraynioc.

**Range.**—Temperate zone of central Peru, in depts. of Huánuco and Junín.

4: Peru (Huánuco Mountains, Huánuco, 3; Pano Mountains, Huánuco, 1).

<sup>1</sup> *Atlapetes torquatus phygas* (Berlepsch): Similar to *A. t. phaeopleurus*, but upper parts decidedly greenish (dark citrine) with the tail more dusky, less brownish; the gray sides and flanks tinged with greenish instead of with buffy brown; the under tail coverts greenish, without any buffy tone. Size about the same.

This interesting race closely resembles the Bolivian *A. t. torquatus* in possessing an unfringed black pectoral collar, but differs by longer bill, duskier under surface of the tail, paler and more yellowish green crissum, and clearer grayish sides.

**Material examined.**—Venezuela: Los Palmales, Sucre, 8.

<sup>2</sup> *Atlapetes torquatus poliophrys* (Berlepsch and Stolzmann) is truly intermediate between *assimilis* and *torquatus*, combining the gray superciliaries of the former with the complete black pectoral collar of the latter. In other respects it is essentially like *torquatus*. Wing (adult female), 81; tail, 84; bill, 16.

**Additional material examined.**—Peru: Maraynioc, 1.

**Atlapetes torquatus torquatus** (Lafresnaye and d'Orbigny).

## BLACK-COLLARED ATLAPETES.

*Embernagra torquata* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 34, 1837—Yungas, Bolivia (type, from Carcuata, in Paris Museum examined).

*Arremon affinis* d'Orbigny, Voy. Amér. Mérid., Ois., p. 282, pl. 27, fig. 1, 1839—Carcuata, Prov. Yungas (new name for *Embernagra torquata* Lafresnaye and d'Orbigny).

*Buarremon torquata* Bonaparte, Consp. Gen. Av., 1, (2), p. 483, 1850—"Gangas"—Yungas, Bolivia.

*Buarremon torquatus* Scater, Proc. Zool. Soc. Lond., 24, p. 84, 1856—Yungas, Bolivia (monog.); idem and Salvin, l.c., 1879, p. 602—Bolivia (Carcuata, Ramosani, Tilotilo); Scater, Cat. Bds. Brit. Mus., 11, p. 256, 1886—Ramosani and Tilotilo; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1102, 1912—part, Ramosani, Tilotilo, Carcuata, Chaco, Cillutincara, Unduavi, Sandillani, San Antonio; Chapman, Bull. Amer. Mus. N. H., 48, pp. 271, 278, 1923—Yungas and Incachaca (Cochabamba), Bolivia (monog.).

*Buarremon torquatus torquatus* Hellmayr, Nov. Zool., 32, p. 4, 1925—Bolivia (crit.).

*Range*.—Subtropical and Temperate zones of northwestern Bolivia (depts. of La Paz and western Cochabamba).<sup>1</sup>

**Atlapetes torquatus fimbriatus** (Chapman).<sup>2</sup> WHITE-FRINGED

## ATLAPETES.

*Buarremon fimbriatus* Chapman, Amer. Mus. Novit., 67, p. 11, April 11, 1923—Tujma (alt. 8,200 ft.), near Mizque, Dept. Cochabamba, Bolivia (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 48, pp. 271, 278, 1923—Tujma (monog.).

<sup>1</sup> Individual variation in this form is comparatively small. The white superciliaries never extend to the base of the bill, while the black pectoral collar, though usually uniform, sometimes shows traces of white fringing.

*Material examined*.—Bolivia: Carcuata, 1 (the type); Chulumani, 1; Sandillani, 5; Chaco, La Paz, 2; San Antonio, 1; Cillutincara, 1; Unduavi, 1.

<sup>2</sup> *Atlapetes torquatus fimbriatus* (Chapman): Similar to *A. t. torquatus*, but white superciliaries reaching very nearly to the base of the bill; back somewhat more tawny; outer webs of rectrices like the back, not dusky or blackish; black pectoral band conspicuously margined with white; bill smaller. Wing (female), 78–80; tail, 77–84; bill, 14.

This is truly a connecting link between *A. t. torquatus* and *A. t. borellii*, but much nearer the latter. On comparing three females from Tujma with three specimens of the same sex from Jujuy, I find complete agreement in all essential characters with the exception that the Bolivian birds have a distinct black, white-edged collar totally absent in the Argentine specimens. This black crescent, however, varies somewhat in extent and development, and the gap separating the Tujma birds from *borellii* is very nearly bridged by an adult male from Santa Ana, Bolivia, in which the feathers of the pectoral collar have merely some isolated subapical spots of black. This specimen is somewhat larger (wing, 84; tail, 86; bill, 15), doubtless owing to its being a male.

*Material examined*.—Bolivia: Tujma, near Mizque, 3; Santa Ana, near Valle Grande, 1.

*Buarremon torquatus* (not *Embernagra torquata* Lafresnaye and d'Orbigny) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1102, 1912—part, Santa Ana, Bolivia.

*Buarremon borellii* (not *B. borellii* Salvadori) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1102, 1912—part, Santa Ana, Bolivia (spec. examined).

*Buarremon torquatus borellii* Hellmayr, Nov. Zool., 32, p. 4, 1925—part, Santa Ana, Bolivia.

*Range*.—Subtropical zone of central Bolivia, in eastern Cochabamba (Tujma, near Mizque) and western Santa Cruz (Santa Ana, near Valle Grande).

***Atlapetes torquatus borellii* (Salvadori).<sup>1</sup> BORELLI'S ATLAPETES.**

*Buarremon borellii* Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 6, 1897—San Lorenzo, Jujuy, Argentina (type in Turin Museum); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 395, 1910—San Lorenzo.

*Buarremon torquatus borellii* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1102, 1912—part, Jujuy (San Lorenzo).

*Buarremon borellii* Chapman, Bull. Amer. Mus. N. Y., 48, p. 266, 1923—San Lorenzo, Jujuy (crit.).

*Buarremon torquatus borellii* Hellmayr, Nov. Zool., 32, p. 4 (in text), 1925—part, San Francisco, Jujuy (crit.).

*Range*.—Subtropical zone of northwestern Argentina, in Province of Jujuy (San Lorenzo; San Francisco, Cerro de Calilegua).

**\**Atlapetes atricapillus*<sup>2</sup> *atricapillus* (Lawrence). LAWRENCE'S BLACK-HEADED ATLAPETES.**

*Buarremon atricapillus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 396, 1874—"Bogotá," Colombia (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Selater, Cat. Bds. Brit. Mus., 11, p. 259, 1886—Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1104, 1912—"Bogotá"; Chapman, Bull. Amer. Mus. N. H., 36, p. 578, 1917—La Frijolera (eastern slope of western Andes) and west of Honda, Colombia.

<sup>1</sup> *Atlapetes torquatus borellii* (Salvadori): Precisely like *A. t. fimbriatus*, but without trace of the black, white-fringed pectoral band. Wing (female), 75–81; tail, 74–82; bill, 14½–15.

*Material examined*.—Argentina, Jujuy: San Francisco, Cerro de Calilegua (alt. 1,500 metr.), Dept. Valle Grande, 3.

<sup>2</sup> *Atlapetes atricapillus*, in general aspect, is so similar to *A. t. assimilis* that one is tempted to suspect conspecific affinity. Its chief differences are the larger, thicker bill with more decurved culmen, and the solid black color of the head without median or superciliary stripes. The value of the color characters is, however, lessened by the occasional suggestion of a white supraloral streak in the typical race, and the distinguishing features of the Panama form (*tacarcunae*), which mark a decided step in the direction of *A. t. assimilis*. The range of *A. a. atricapillus*, which is sometimes met with in native Bogotá collections, is, however, so incompletely known that it is at present better kept as a separate species.

*Material examined*.—Colombia: "Bogotá," 3.

*Buarremon atricapillus atricapillus* Chapman, Bull. Amer. Mus. N. H., **48**, pp. 265, 277, 1923—La Frijolera and west of Honda, Colombia (monog.).

*Range*.—Subtropical zone of Colombia (La Frijolera, east slope of western Andes; west of Honda, central Andes).

1: Colombia (Bogotá, 1).

**Atlapetes atricapillus tacarcunae** (Chapman).<sup>1</sup> TACARCUNA  
BLACK-HEADED ATLAPETES.

*Buarremon atricapillus tacarcunae* Chapman, Amer. Mus. Novit., **67**, p. 11, 1923—Mount Tacarcuna, eastern Panama (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., **48**, pp. 265, 277, 1923—Mount Tacarcuna (monog.); Griscom, Bull. Mus. Comp. Zool., **69**, p. 185, 1929—Cana, Darien.

*Range*.—Subtropical zone of eastern Panama (Mount Tacarcuna and Cana, Darien).

Genus **LYSURUS** Ridgway

*Lysurus* Ridgway, Auk, **15**, p. 225, July, 1898—type, by orig. desig., *Buarremon crassirostris* Cassin.

**Lysurus crassirostris** (Cassin). BARRÁNCA SPARROW.

*Buarremon crassirostris* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 170—Barránca, Costa Rica (type in U. S. National Museum); Salvin, Proc. Zool. Soc. Lond., 1867, p. 140, pl. 14—Santiago de Veraguas and Cordillera de Tolé, Veraguas (crit.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., **9**, p. 101, 1868—Barránca, Costa Rica; Frantzius, Journ. Orn., **17**, p. 300, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 188—Cordillera del Chucú, Veraguas; Salvin and Godman, Biol. Centr. Amer., Aves, **1**, p. 323, 1884—Costa Rica (Barránca) and Veraguas (Santiago, Cordillera de Tolé, Cordillera del Chucú); Selater, Cat. Bds. Brit. Mus., **11**, p. 262, 1886—Costa Rica (Buena Vista) and Veraguas (Cordillera de Tolé, Cordillera del Chucú); Zeledón, Anal. Mus. Nac. Costa Rica, **1**, p. 110, 1887—Rio Sucio, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., **11**, p. 540, 1888—Rio Sucio, Costa Rica.

*Lysurus crassirostris* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 458, 1901—Costa Rica and Veraguas (monog.); Bangs, Proc. New Engl. Zool. Cl., **3**, p. 69, 1902—Boquete and Volcan de Chiriquí, Panama; Carriker, Ann. Carnegie Mus., **6**, p. 900, 1910—Costa Rica (La Lagunaria de Dota, La Hondura, Carrillo, Cariblanco, Cachí, Volcan de Turrialba, Cariblanco de Sarapiquí); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1104, 1912—Costa Rica to Veraguas.

*Buarremon mesoxanthus* Salvin, Proc. Zool. Soc. Lond., 1866, p. 72—Veraguas (type in Salvin-Godman Collection, now in British Museum).

<sup>1</sup> *Atlapetes atricapillus tacarcunae* (Chapman): Differs from the nominate race by having a gray postocular streak, a more or less developed gray vertical stripe, and a thicker, on average longer bill. We are not acquainted with this seemingly well-marked race.

*Range*.—Subtropical and upper Tropical zones of Costa Rica and western Panama (Chiriquí and Veraguas).<sup>1</sup>

**Lysurus castaneiceps**<sup>2</sup> (Slater). CHESTNUT-CAPPED SPARROW.

*Buarremon castaneiceps* Slater, Proc. Zool. Soc. Lond., 27, p. 441, 1859—Rio Napo, Ecuador (type in coll. of P. L. Slater, now in British Museum); idem, l.c., 28, p. 86, 1860—Nanegal, Ecuador; Slater and Salvin, l.c., 1879, p. 505—Frontino, upper Rio Sucio, Colombia (eggs descr.); Slater, Cat. Bds. Brit. Mus., 11, p. 261, 1886—Ecuador (Rio Napo, Nanegal) and Colombia (Frontino).

*Lysurus castaneiceps* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B82, 1911—Oyacachi, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1104, 1912—Colombia (Frontino), Ecuador (Rio Napo, Nanegal), and Peru (Marcapata); Chapman, Bull. Amer. Mus. N. H., 36, p. 574, 1917—western Andes of Colombia (Nóvita Trail, Cocal, Gallera); idem, l.c., 55, p. 631, 1926—lower Sumaco and Macas region, Ecuador.

*Range*.—Subtropical zone of Colombia (western Andes), Ecuador (both slopes), and southeastern Peru (Marcapata, Dept. Cuzco).

Genus **ARREMON** Vieillot

*Arremon* Vieillot, Analyse Nouv. Orn. Elém., p. 32, April, 1816—type, by monotypy, “Oiseau Silencieux” Buffon = *Tanagra taciturna* Hermann.

**\*Arremon taciturnus taciturnus** (Hermann). PECTORAL SPARROW.

*Tanagra taciturna* Hermann, Tabl. Aff. Anim., p. 214 (note), 1783—based upon “L’Oiseau Silencieux” Buffon, Hist. Nat. Ois., 4, p. 304, and Daubenton, Pl. Enl., pl. 742; Cayenne (cf. Stresemann, Nov. Zool., 27, p. 328, 1920).

*Tanagra silens* Boddaert, Tabl. Pl. Enl., p. 46, Dec., 1783—based upon Daubenton, Pl. Enl., pl. 742, Cayenne; Wied, Reise Bras., 2, p. 148, 1821—Rio Catolé, southern Bahia; idem, Beitr. Naturg. Bras., 3, (1), p. 507, 1830—eastern Brazil.

*Arremon torquatus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 2, p. 549, 1816—primarily based upon Daubenton, Pl. Enl., pl. 742; “Guiane”;<sup>3</sup> Vieillot and Oudart, Gal. Ois., 1, (2), p. 105, pl. 78, circa 1820—Cayenne;<sup>3</sup> Slater, Cat. Coll. Amer. Bds., p. 93, 1862—Brazil.

<sup>1</sup> Birds from Chiriquí (Boquete) appear to agree with a Costa Rican series.

<sup>2</sup> *Lysurus castaneiceps*, a very rare bird in collections, may turn out to be merely a geographical representative of the genotype, from which it differs chiefly by uniform dusky gray throat and absence of yellow on the belly. With only a single Ecuadorian specimen before me, I am not in the position to pass a definite judgment on its taxonomic rank. Years ago, I saw in the Berlepsch Collection an example collected by Otto Garlepp in the Marcapata Valley, Peru, of what appeared to be the present species, though direct comparison with topotypical material was not possible at the time.

*Material examined*.—Ecuador: Lower Sumaco, 1.

<sup>3</sup> The birds described by Azara, which Vieillot believed to be of the same species, are different.

*Arremon silens* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 677, 1849—Roraima; Bonaparte, Consp. Gen. Av., 1, (2), p. 487, 1850—Guiana; Burmeister, Syst. Uebers. Th. Bras., 3, p. 221, 1856—Bahia and Pará; Sclater, Proc. Zool. Soc. Lond., 24, p. 80, 1856—Cayenne, Rio Capim, and "southeastern" Brazil; idem, Cat. Coll. Amer. Bds., p. 93, 1862—Pará, Cayenne, and "Trinidad"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 572—Rio Capim, Pará; Pelzeln, Orn. Bras., 3, p. 216, 1870—Goyáz City, Engenho do Gama (Matto Grosso), Manáos, and Serra Caraumán (Rio Branco), Brazil (spec. examined); Layard, Ibis, 1873, p. 380—Pará; Salvin, Ibis, 1885, p. 212—British Guiana (Bartica Grove, Merumé Mountains, Camacusa, Atapurau River, Roraima); Sclater, Cat. Bds. Brit. Mus., 11, p. 273, 1886—Cayenne, Oyapock, Bartica Grove, Camacusa, Atapurau River, Merumé Mts., Roraima, Maroni River (Surinam), Rio Capim, Pernambuco, Bahia, and "Trinidad"; Berlepsch and Hartert, Nov. Zool., 9, p. 23, 1902—Orinoco River (Maipures) and Caura Valley (Suapuré, La Prición, Nicare, La Unión), Venezuela; Allen, Bull. Amer. Mus. N. H., 3, p. 363, 1891—Chapada, Matto Grosso; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 182, 1904—Saint Georges d'Oyapock, French Guiana; Hellmayr, Nov. Zool., 12, p. 275, 1905—Igarapé-Assú, Pará; idem, l.c., 13, p. 358, 1906—Santo Antonio do Prata, Pará; Ihering, Cat. Faun. Braz., 1, p. 386, 1907—Bahia and Rio Doce, Espírito Santo (range); Snethlage, Journ. Orn., 55, p. 295, 1907—Pará, Santo Antonio, and Cussary, Brazil; idem, l.c., 56, p. 499, 1908—Ilha Campinho, Rio Tapajóz; Hellmayr, Nov. Zool., 15, p. 30, 1908—Rio Thesouras and Goyáz, Goyáz; Berlepsch, l.c., 15, pp. 117, 317, 1908—Cayenne, Ipousin (Approuague River), and St. Georges d'Oyapock, French Guiana; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 83, 1910—Santa Maria and Matinha, Piahy; Hellmayr, Nov. Zool., 17, p. 279, 1910—Allianca and Jamarysinho, Rio Madeira; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 13, 87, 1912—Ipitinga and Peixe-Boi, Pará (Pará localities); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1105, 1912 (range); Snethlage, Bol. Mus. Goeldi, 8, p. 458, 1914—Pará, Providencia, Santa Isabel, Quati-purú, Santo Antonio, Rio Tocantins (Cametá, Baião, I. Bocca do Manapiri, Arumatheua), Cussary, Tamucury, Rio Tapajóz (Boim, Campinho), Rio Jamauchim (Tucunaré), and Obidos, Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 197, 1916—Maipures (Orinoco) and Caura, Venezuela; Beebe, Trop. Wild Life, 1, p. 136, 1917—Bartica; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 93, 1918—Paramaribo and Lelydorp, Surinam; Lima, Rev. Mus. Paul., 12, (2), p. 101, 1920—Belmonte to Ilhéos, southern Bahia; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, pp. 42, 60, 1926—Serra do Ibiapaba, Ceará; Anil, São Bento, and Tury-assú, Maranhão; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Pará.

*Arremon taciturnus* Chubb, Bds. Brit. Guiana, 2, p. 469, 1921—Mount Roraima, Ituribisci River, Bartica, Camacabra Creek, Bonasika, Makauria River, Abary River, Anarica River, and Tiger Creek.

*Arremon taciturnus taciturnus* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 288, 1929—Maranhão (Tury-assú, São Bento, Grajahú, Fazenda



Inhuma) and Ceará (Varzea Formosa, Serra de Baturité); Naumburg, Bull. Amer. Mus. N. H., 60, p. 361, 1930—Utiariti and Campos Novos, Matto Grosso; Chapman, l.c., 63, p. 122, 1931—Roraima (Paulo and Arabupu).

*Range*.—French, Dutch, and British Guiana; southern Venezuela (Orinoco-Caura basin); northern and eastern Brazil, west to the Rio Negro (Manáos) and the Rio Madeira, south to Espirito Santo, Goyáz, and Matto Grosso.<sup>1</sup>

8: British Guiana (Mazaruni River, 1); Brazil (Tury-assú, Maranhão, 1; São Bento, Maranhão, 1; Grajahú, Maranhão, 1; Inhuma, Alto Parnahyba, Maranhão, 1; Varzea Formosa, Ceará, 1; Serra Baturité, Ceará, 1; Utinga, Pará, 1).

**Arremon taciturnus nigrirostris** Sclater.<sup>2</sup> BLACK-BILLED SPARROW.

*Arremon nigrirostris* Sclater, Cat. Bds. Brit. Mus., 11, p. 276, 1886—Cosnipata, Dept. Cuzco, Peru (type in British Museum); Berlepsch and Stolzmann, Ornith., 13, p. 111, 1906—Chontapuncu and Huaynapata, Dept. Cuzco, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1106, 1912—Peru (Cosnipata, Huaynapata) and Bolivia (San Mateo, Songo).

*Arremon silens*(?) (not *Tanagra silens* Boddaert) Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, pp. 185, 187—Cosnipata, Peru.

*Arremon taciturnus nigrirostris* Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 32, 1920—San Gaban, Chaquimayo, and Yahuar Mayo, Sierra of Carabaya, Peru (crit.).

*Range*.—Tropical zone of southwestern Peru (depts. of Cuzco and northern Puno) and northern Bolivia (Songo, Dept. La Paz; San Mateo, Dept. Cochabamba).

<sup>1</sup> I cannot satisfactorily separate birds from eastern Brazil, though I have yet to see from Guiana or Amazonia specimens with such an extensive grayish suffusion across chest and along flanks as is the case in some individuals from Bahia. Other differences I am unable to perceive.

*Additional material examined*.—French Guiana: Cayenne, 2; Ipousin, 2.—British Guiana: Bartica Grove, 3; River Atapurau, 1; Merumé Mts., 1; Roraima, 2.—Venezuela: Maipures, 1; Munduapo, 1; Caura, 6.—Brazil: Pará region, 10; Serra Carumán, Rio Branco, 1; Manáos, 3; Jamarýsinho, Rio Machados, 1; Engenho do Gama, Matto Grosso, 1; Goyáz City, Goyáz, 6; Matinha, Piauí, 1; Santa Maria, Piauí, 1; Bahia, 11.

<sup>2</sup> *Arremon taciturnus nigrirostris* Sclater: Agreeing with the nominate race in all essential characters, viz., wholly black bill, black chin-spot, and white superciliaries reaching nearly to the base of the bill, but adult male with only a black spot on each side of the neck (in lieu of a continuous black jugular band), and female without trace of a dusky crescent on the foreneck. Wing, 76–80, (female) 74–75; tail, 64–67, (female) 58–60; bill, 14–15.

*Material examined*.—Peru, Dept. Puno, Sierra of Carabaya: San Gaban, 6; Chaquimayo, 1; Yahuar Mayo, 1.—Bolivia: Songo, Dept. La Paz, 2; San Mateo, Dept. Cochabamba, 1.

**\*Arremon taciturnus axillaris** Sclater.<sup>1</sup> YELLOW-SHOULDERED SPARROW.

*Arremon axillaris* Sclater, Proc. Zool. Soc. Lond., 22, "1854," p. 97, pub. April 5, 1855—"in Nova Grenada" (type in coll. of P. L. Sclater, now in British Museum); idem, l.c., 23, p. 154, 1855—"Bogotá"; idem, l.c., 24, p. 82, 1856—"Bogotá" (monog.); idem, Cat. Coll. Amer. Bds., p. 93, 1862—"Bogotá"; idem, Cat. Bds. Brit. Mus., 11, p. 277, 1886—"Bogotá"; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1106, 1912—"Bogotá"; Chapman, Bull. Amer. Mus. N. H., 36, p. 574, 1917—Villavicencio, eastern base of eastern Andes, Colombia.

*Range*.—Tropical zone of the eastern Andes of Colombia (Villavicencio, eastern base of eastern Andes).

1: Colombia (Bogotá, 1).

**Arremon taciturnus semitorquatus** Swainson.<sup>2</sup> HALF-COLLARED SPARROW.

*Arremon semitorquatus* Swainson, Anim. Menag., p. 357, Dec. 31, 1837—Brazil<sup>3</sup> (type in coll. of W. Swainson, now in University Museum, Cambridge, Eng.); Bonaparte, Consp. Gen. Av., 1, (2), p. 488, 1850—Brazil; Sclater, Proc. Zool. Soc. Lond., 24, p. 82, 1856—South Brazil (monog.); idem, Cat. Coll. Amer. Bds., p. 93, 1862—southern Brazil; Pelzel, Orn. Bras., 3, p. 217, 1870—Ypanemá, São Paulo; Cabanis, Journ. Orn., 22, p. 84, 1874—Cantagallo, Rio de Janeiro; Sclater, Cat. Bds. Brit. Mus., 11, p. 277, 1886—Nova Friburgo, Rio; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 120, 1899—Novo Hamburgo, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 155, 1899—São Paulo (Piquete, Iguapé) and Rio Grande do Sul (Novo Hamburgo); idem, l.c., 4, p. 153, 1900—Cantagallo and

<sup>1</sup> *Arremon taciturnus axillaris* Sclater: Similar to *A. t. semitorquatus* in yellow lower mandible, and in having a large black patch on each side of the lower neck, but with lesser upper wing coverts and bend of the wing bright yellow.

This bird, of which the only recorded exact locality is Villavicencio, at the eastern base of the east Colombian Andes, is frequently met with in native "Bogotá" collections.

*Material examined*.—Colombia: "Bogotá," 10.

<sup>2</sup> *Arremon taciturnus semitorquatus* Swainson: Similar to *A. t. taciturnus*, but with the lower mandible yellow, the lesser upper wing coverts nearly the same color as the back instead of bright yellow, and the black jugular band interrupted in the middle. The black chin-spot is just as well-marked, and the white superciliaries extend as far towards the base of the bill as in *A. t. taciturnus*.

Individual variation in the series examined clearly indicates conspecific relationship to the black-billed form found north of Rio de Janeiro. Certain specimens show a slight yellowish tinge on the carpal edge of the wing, while the black jugular band is very nearly confluent in the middle. The latter feature is especially developed in two adults from the Serra dos Orgãos, and a male from São Paulo (Ypanemá) also runs very close in that respect.

*Material examined*.—Rio de Janeiro: Colonia Alpina, Serra dos Orgãos, 6; Petropolis, 1.—São Paulo: Iguapé; Ypanemá, 6.

<sup>3</sup> Rio de Janeiro suggested as type locality by Berlepsch (Verh. 5th Intern. Orn. Kongr. Berlin, p. 1106, 1912).

Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 386, 1907—São Paulo (Piquete, Estação Rio Grande); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1106, 1912—Nova Friburgo, Rio.

*Range*.—Tropical zone of southeastern Brazil, from Rio de Janeiro to Rio Grande do Sul (Novo Hamburgo).

**\*Arremon schlegeli Bonaparte.<sup>1</sup> SCHLEGEL'S FINCH.**

*Arremon schlegeli* Bonaparte, Consp. Gen. Av., 1, (2), p. 488, 1850—"ex Amer. merid."=Caracas, Venezuela (type in Leyden Museum); Sclater, Proc. Zool. Soc. Lond., 24, p. 83, 1856—Santa Marta and Cartagena, Colombia, and Caracas, Venezuela (monog.); Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 140—Cartagena; Sclater, Cat. Coll. Amer. Bds., p. 93, 1862—Santa Marta; Salvin and Godman, Ibis, 1880, p. 121—Minca, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 279, 1886—Caracas and Minca; Bangs, Proc. Biol. Soc. Wash., 12, pp. 140, 178, 1898—Santa Marta, Palomina, and San Miguel, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 313, 1899—La Popa, Cartagena, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 167, 1900—Bonda, Minca, Onaca, and Valparaiso, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1107, 1912—northern Colombia (Santa Marta, Bonda, Minca, Cartagena) and Venezuela (Caracas); Todd and Carriker, Ann. Carnegie Mus., 14, p. 525, 1922—La Concepción, Chirua, Onaca, Cacagualito, Mamatoco, Agua Dulce, Minca, Las Vegas, Pueblo Viejo, and La Tigrera, Santa Marta region, Colombia (crit., habits); Darlington, Bull. Mus. Comp. Zool., 71, p. 420, 1931—Rio Frio, Magdalena, Colombia.

*Range*.—Tropical (and lower Subtropical) zone of northern Venezuela (Caracas) and northern Colombia west to Cartagena.

2: Colombia (Turbaco, Bolívar, 2).

**Arremon flavirostris<sup>2</sup> flavirostris Swainson.<sup>3</sup> SWAINSON'S PECTORAL FINCH.**

<sup>1</sup> *Arremon schlegeli* Bonaparte is perhaps more nearly related to the *A. flavirostris* group than to any other species. It differs, however, very markedly by the reddish bill with merely a black spot at the base of the culmen, and wholly black pileum without any trace of white superciliaries. The broad gray, anteriorly whitish nuchal collar, in abrupt contrast to the yellowish green mantle, forms another characteristic feature.

A single adult obtained by Levraud near Caracas, the only one from Venezuela we have seen, is not different from others of the Santa Marta region.

*Additional material examined*.—Venezuela: Caracas, 1.—Colombia: Minca, 2; Bonda, 2; "Santa Marta," 2; Cartagena, 1.

<sup>2</sup> *Arremon flavirostris*, in spite of its superficial resemblance, is quite distinct specifically from *A. taciturnus*, races of both groups occurring side by side in parts of Brazil (Bahia and Matto Grosso). Its principal characters are the absence of the black mental spot and the coloration of the bill, the latter being wholly orange except for the blackish upper surface of the culmen. Besides, in the typical form and the two gray-backed races, the white superciliaries commence above the eye (while in *A. taciturnus* they are carried forward above the lores to within a short distance from the base of the bill), and the gray vertical stripe is barely suggested.

<sup>3</sup> *Arremon flavirostris flavirostris* Swainson resembles in every particular the better known *A. f. polionotus* and merely differs by having the dorsal surface from

*Arremon flavirostris* Swainson, Anim. Menag., p. 347, Dec. 31, 1837—"Brazil," we suggest interior of Bahia (type in coll. of W. Swainson); Sclater, Proc. Zool. Soc. Lond., 24, p. 81, 1856—"Cametá" [Rio Tocantins], Brazil (monog.; spec. in Berlin Museum examined); Burmeister, Syst. Uebers. Th. Bras., 3, p. 222, 1856—"Cametá," Brazil; Sclater, Cat. Bds. Brit. Mus., 11, p. 274, 1886—"Cametá"; Berlepsch and Leverkühn, Ornith., 6, p. 8, 1890—Santa Maria, "in Goyáz"=two days' journey south of Monte Alegre, Prov. Araguay, Minas Geraes (spec. in Berlin Museum examined); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 421—Lagõa Santa and Sete Lagõas, Minas Geraes; Ihering, Cat. Faun. Braz., 1, p. 386, 1907—São Paulo (Jaboticabal, Barretos, Bebedouro, Rio Feio, Baurú);<sup>2</sup> Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1105, 1144, 1912—"Cametá," Bahia, "Goyáz" (Santa Maria), Minas Geraes (Sete Lagõas), and São Paulo (Bebedouro); Snethlage, Bol. Mus. Goeldi, 8, p. 458, 1914—"Cametá."

*Arremon wuchereri* Sclater and Salvin, Nomencl. Av. Neotrop., pp. 25, 157, 1873—Bahia (type in Salvin-Godman Collection, now in British Museum, examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 278, pl. 17, 1886—Bahia; Ihering, Rev. Mus. Paul., 5, p. 265, 1902—Jaboticabal, São Paulo (crit.); Hellmayr, Nov. Zool., 13, p. 313, 1906 (crit., range).

*Arremon affinis* (not of d'Orbigny) Burmeister, Syst. Uebers. Th. Bras., 3, p. 223, 1856—Sete Lagõas, Minas Geraes (descr. of young; spec. in Halle Museum examined).

the nape to the tail coverts olive-green instead of gray. In another connection (Nov. Zool., 13, p. 313, 1906) we had already hinted at the apparent identity of *A. wuchereri* (from Bahia) and *A. flavirostris*, and this conclusion has been fully substantiated by a series since received from Minas Geraes. One of the adult males is even larger than the type of *A. wuchereri*, and, like it, has the top of the head uniform deep black with only a few gray edges in the middle of the nape. Other specimens from the same locality, however, do not differ in the least from São Paulo birds. The example recorded by Burmeister s. n. *A. affinis*, which we have examined in the Halle Museum, is a young bird in change of plumage. An individual in similar, though less advanced state, is in the Munich Museum (No. 11.1502. Agua Suja, Minas Geraes). Adult females, when compared with the males, are smaller and have a broad continuous olive grayish stripe along the middle of the crown, while the median abdomen is more or less tinged with buffy with the sides and flanks pale brownish instead of gray. Wing, (male) 78–85, (female) 74–77; tail, 73–77, (female) 67–71; bill, 14–15.

The range of *A. f. flavirostris* appears to center in Minas Geraes, whence it extends east into the adjoining parts of Bahia and west into the eastern section of São Paulo. Still farther west in the latter state, along the rivers Tieté and Paraná, it is replaced by the gray-backed *A. f. devillii*. The locality "Cametá" [lower Tocantins, Pará] attached to a specimen in the Berlin Museum (No. 6245) is unquestionably due to some confusion, the collector, Sieber, having also worked in the State of Bahia (cf. Streubel, Isis, 1848, p. 359; Wied, Reise Brasilien, 2, p. 270, 1821; Temminck, Hist. Nat. Fig. & Gall., 1, p. 337, 1813).

*Material examined*.—Bahia: unspecified, 1 (type of *A. wuchereri*).—Minas Geraes: Santa Maria, 1; Rio Jordão, Prov. Araguay, 1; Agua Suja, near Bagagem, 5; Sete Lagõas, 1.—São Paulo: Barretos, 1; Bebedouro, 2; Jaboticabal, 1.—"Cametá," 1.

<sup>1</sup> I could not find the type in the University Museum at Cambridge, England.

<sup>2</sup> The localities Avanhadava and Itapura are erroneously listed by Ihering under the present heading.

*Buarremon torquatus* (not *Embernagra torquata* Lafresnaye and d'Orbigny) Reinhardt, Vidensk. Medd. Naturh. Foren., 1870, p. 423—Sete Lagõas, Minas Geraes (ex *Arremon affinis* Burmeister); Ihering, Cat. Faun. Braz., 1, p. 386, 1907—part, Minas Geraes (ex Burmeister).

*Arremon flavirostris flavirostris* Pinto, Rev. Mus. Paul., 17, (2), p. 795, 1932—Sant' Anna do Paranahyba, Matto Grosso.

*Range*.—Interior of eastern Brazil, in states of Bahia (exact limits unknown), Minas Geraes (Lagõa Santa; Sete Lagõas; Rio Jordão, Agua Suja, near Bagagem, and Santa Maria, Prov. Araguay), northeastern São Paulo (Barretos, Bebedouro, Jaboticabal, Baurú), and the adjacent parts of southeastern Matto Grosso (Sant' Anna do Paranahyba).

**\**Arremon flavirostris devillii* Des Murs.<sup>1</sup> DEVILLE'S PECTORAL FINCH.**

*Arremon devillii* (Bonaparte MS.) Des Murs, in Castelnau, Exp. Amér. Sud, Ois., p. 69, pl. 20, fig. 2, June 30, 1856—no locality given (the type examined in the Paris Museum is marked "Province de Goyas," Brazil); Selater, Proc. Zool. Soc. Lond., 24, p. 81, July 30, 1856—Prov. Goyáz, in Brazil; idem, Cat. Bds. Brit. Mus., 11, p. 274, 1886—Goyáz.

*Embernagra sileus* (not *Tanagra silens* Boddaert) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 34, 1837—part, Chiquitos, Bolivia (spec. in Paris Museum examined).

*Arremon silens* d'Orbigny, Voy. Amér. Mérid., Ois., p. 281, 1839—part, "female," Chiquitos, Bolivia.

*Arremon polionotus* (not of Bonaparte) Selater, Proc. Zool. Soc. Lond., 24, p. 81, 1856—part, Cuyabá, Matto Grosso (monog.); Pelzeln, Orn. Bras., 3, p. 217, 1870—Cuyabá (spec. examined); Selater, Cat. Bds. Brit. Mus., 11, p. 278, 1886—Cuyabá; Allen, Bull. Amer. Mus. N. H., 3, p. 362, 1891—Chapada, Matto Grosso (plumages, eggs descr.); Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 4, 1900—Urucúm and Corumbá, Matto Grosso.

*Arremon polionotus devillii*(ei) Hellmayr, Nov. Zool., 13, pp. 312, 313, 1906—central Brazil and Chiquitos, eastern Bolivia (crit., range); Ihering, Cat.

<sup>1</sup> *Arremon flavirostris devillii* Des Murs: Very similar to *A. p. polionotus*, but upper parts paler gray with a slight olivaceous suffusion, and black jugular band narrower. Size the same.

Two adult males and a female from northwestern São Paulo (lower Tieté) agree with a series from Matto Grosso and the Chiquitos district of eastern Bolivia. While the narrow jugular band (from three to seven millimeters wide) serves to distinguish this form from *polionotus*, the coloration of the back is not an absolutely constant feature, some adult males having the dorsal surface of the same uniform gray tone as birds from Paraguay. The type, a slightly immature individual, unquestionably pertains to the present form. It is labeled "Province of Goyáz" and was obtained by the Castelnau Expedition.

*Additional material examined*.—Bolivia: Chiquitos, 2; San José, Chiquitos, 2.—Brazil: "Goyáz," 1 (the type); Cuyabá, Matto Grosso, 9; Chapada, Matto Grosso, 10; Avanhandava (São Jerônimo), lower Tieté, 2; Itapura, junction of the Tieté and Paraná rivers, São Paulo, 1.

Faun. Braz., 1, p. 387, 1907—Itapura and Avanhandava [=São Jerónimo], Rio Tieté, northwestern São Paulo (spec. examined); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1107, 1912—"Goyáz" and Matto Grosso; Ménégau, Rev. Franç. d'Orn., 5, p. 86, 1917—Caceres, Matto Grosso.

*Arremon flavirostris devillii* Hellmayr, Nov. Zool., 32, p. 3, 1925—Chiquitos, eastern Bolivia (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 361, 1930—Urucúm and Belvedere de Urucúm, Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 263, 1930—San José, Chiquitos, Bolivia; Pinto, Rev. Mus. Paul., 17, (2), p. 796, 1932—Valparaíso, São Paulo.

*Arremon orbignii* (not *A. d'orbignii* Sclater) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 603—part, Chiquitos (ex d'Orbigny).

*Range*.—Interior of Brazil, in states of Goyáz and Matto Grosso and in the northwestern section of São Paulo (lower Tieté to its junction with the Rio Paraná), and adjoining parts of eastern Bolivia (Chiquitos).

5: Brazil (Chapada, Matto Grosso, 3; Urucúm de Corumbá, Matto Grosso, 1; Araçatuba, São Paulo, 1).

***Arremon flavirostris polionotus* Bonaparte. GRAY-BACKED PECTORAL FINCH.**

*Arremon polionotus* Bonaparte, Consp. Gen. Av., 1, (2), p. 488, 1850—Corrientes, Argentina (type in Paris Museum examined); Sclater, Proc. Zool. Soc. Lond., 24, p. 81, 1856—part, Corrientes; Kerr, Ibis, 1892, p. 125—Fortín Donovan, lower Pilcomayo; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 4, 1895—Colonia Risso, Paraguay (spec. examined); Hellmayr, Nov. Zool., 13, p. 311, 1906—Corrientes and Paraguay (crit.); Lillo, Apunt. Hist. Nat., 1, p. 44, 1909—Mocoví, Santa Fé; Chubb, Ibis, 1910, p. 631—Sapucay, Paraguay; Grant, Ibis, 1911, p. 94—Rio Ancho, Chaco, and Villa Franca, Paraguay; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1106, 1912—Corrientes and Paraguay (Sapucay, Colonia Risso); Bertoni, Anal. Soc. Cient. Arg., 75, p. 99, 1913—Alto Paraná (Iguazú), Misiones.

*Arremon silens* (not *Tanagra silens* Boddaert) d'Orbigny, Voy. Amér. Mérid., Ois., p. 281, 1839—part, "male," Corrientes.

*Arremon callistus* Oberholser, Proc. Biol. Soc. Wash., 14, p. 188, 1901—Sapucay, Paraguay (type in U. S. National Museum examined); idem, Proc. U. S. Nat. Mus., 25, p. 145, 1902—Sapucay.

*Arremon flavirostris polionotus* Hartert and Venturi, Nov. Zool., 16, p. 172, pl. 2, fig. 24 (egg), 1909—Ocampo, Santa Fé (habits, nest, and eggs descr.); Hellmayr, l.c., 32, p. 3, 1925—Corrientes (crit.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 190, 1926—Salto Guayra, Rio Paraná, Paraná, Brazil; Laubmann, Verh. Orn. Ges. Bay., 20, p. 606, 1935—Estrella, Rio Apa, Matto Grosso (crit.).

*Arremon polionotus polionotus* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 395, 1910—Corrientes, Chaco (Mocoví, Ocampo), and Paraguay

(lower Pilcomayo); Bertoni, Faun. Parag., p. 63, 1914—Paraguay (Alto Paraná, central and southern parts); Wetmore, Bull. U. S. Nat. Mus., 133, p. 410, 1926—Chaco (Resistencia, Las Palmas) and Formosa (Riachó Pilaga).

*Arremon polionotus calistus* [sic] Bertoni, Faun. Parag., p. 63, 1914—Paraguay (ex Oberholser).

*Range*.—Northeastern Argentina, in provinces of Corrientes, Misiones (Iguazú), Formosa, and Chaco, and Paraguay, extending into adjacent districts of the Brazilian states of Paraná (Salto Guayra, Rio Paraná) and Matto Grosso (Estrella, Rio Apa).<sup>1</sup>

**\**Arremon flavirostris d'orbignii* Sclater.<sup>2</sup> D'ORBIGNY'S PECTORAL FINCH.**

*Arremon d'orbignii* Sclater, Proc. Zool. Soc. Lond., 24, p. 81, July 30, 1856—Prov. Yungas, Bolivia (type in Paris Museum examined); White, l.c., 1882, p. 597—Sierra de Totoral, Catamarca.

*Arremon orbignii* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 603—part, Valle Grande and Yungas, Bolivia (ex d'Orbigny); Sclater, Cat. Bds. Brit. Mus., 11, p. 274, 1886—Bolivia and Argentina (Catamarca); Sclater and Hudson, Arg. Orn., 1, p. 41, 1888—Sierra de Totoral, Catamarca; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 7, 1897—Tala, Salta, and Aguiarrenda, Bolivia; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 176, 1902—Rio Salí, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Orán, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 42, 1905—Rio Salí, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 395, 1910 (range in Argentina); Friedmann, Bull. Mus. Comp. Zool., 68, p. 233, 1927—Concepción, Tucumán.

*Arremon orbignyi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1105, 1912—Bolivia (Samaipata, Santa Cruz, Valle Grande, Omeja, Quebrada Onda) and Argentina (Catamarca); Dinelli, El Hornero, 1, p. 67, 1918—Tucumán (habits, nest, and eggs).

<sup>1</sup> Specimens from Santa Fé (Ocampo) and Paraguay are identical with the type collected by d'Orbigny in Corrientes. An adult male from Sapucay with gray upper wing coverts was described by Oberholser as *A. callistus*, but as other Paraguayan specimens have the yellowish green humeral area just as well developed as Bonaparte's type, this is clearly an individual mutation.

*Material examined*.—Paraguay: Island near Concepción, 2; Colonia Risso, Rio Apa, 1; Sapucay, 2; Puerto Bertoni, Alto Paraná, 1.—Argentina: Corrientes, 1 (the type); Mocoví, Santa Fé, 6.

<sup>2</sup> *Arremon flavirostris d'orbignii* Sclater resembles *A. f. flavirostris* in citrine back, though the tone is somewhat duller and darker, but differs from the nominate, as well as the other races, by having the white superciliaries extended very nearly to the nostrils (much as in *A. taciturnus*) and by possessing, even in the plumage of the adult male, a broad gray stripe along the median portion of the pileum.

Argentine birds agree with others from Bolivia.

*Additional material examined*.—Bolivia: Yungas, 1 (the type); Omeja, Yungas of La Paz, 1; Quebrada Onda, Yungas of Cochabamba, 1; Samaipata, Santa Cruz, 1; Caraparicito, Santa Cruz, 1.—Argentina: Ledesma, Jujuy, 2; Metán, Salta, 2; Norco, Tucumán, 1; San Pablo, Tucumán, 1; Vipos, Tucumán, 2; Sierra de Totoral, Catamarca, 1.

*Arremon flavirostris d'orbignii* Hartert and Venturi, Nov. Zool., 16, p. 172, 1909—Tucumán (Vipos, San Pablo, Norco), Salta (Metan), and Jujuy (Ledesma); Hellmayr, l.c., 32, p. 3, 1925—Yungas (note on type); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 263, 1930—Carapacito, Santa Cruz, Bolivia.

*Embernagra sileus* (not *Tanagra silens* Boddaert) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 34, 1837—part, Valle Grande, Bolivia.

*Arremon silens* d'Orbigny, Voy. Amér. Mérid., Ois., p. 281, 1839—part, "female," Yungas and Valle Grande, Bolivia.

*Range*.—Tropical zone of Bolivia (excepting the Chiquitos district in the extreme east) and western Argentina, in provinces of Jujuy, Salta, Tucumán, and Catamarca (Sierra de Totoral).

11: Argentina (Concepción, Tucumán, 11).

**\**Arremon aurantirostris saturatus* Cherrie.<sup>1</sup> NORTHERN ORANGE-BILLED SPARROW.**

*Arremon aurantirostris saturatus* Cherrie, Proc. U. S. Nat. Mus., 14, p. 345, Sept., 1891—part, Choctum, Vera Paz, Guatemala (type from Choctum in U. S. National Museum; cf. Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 456, note 2, 1901); Austin, Bull. Mus. Comp. Zool., 69, p. 390, 1929—Cayo district, British Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 369, 1932—Chimoxan, Finca Sepacuite, and Secanquim, Guatemala (crit.).

*Arremon aurantirostris* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 27, p. 377, 1859—Playa Vicente, Oaxaca, Mexico; Sclater and Salvin, Ibis, 1860, p. 32—Coban, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 93, 1862—Choctum, Guatemala; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 43, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 324, 1886—part, Mexico (Playa Vicente), British Honduras (Belize), and Guatemala (Coban, Choctum, Chisee); Sclater, Cat. Bds. Brit. Mus., 11, p. 275, 1886—part, spec. a-e, Mexico, Guatemala (Choctum, Chisee), and British Honduras (Belize); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 455, 1901—part, Mexico (Oaxaca; Teapa, Tabasco) and Guatemala (Coban); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 117, 1907—Los Amates, Guatemala; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1106, 1912—part, Mexico, Guatemala, and British Honduras.

*Range*.—Tropical zone of southeastern Mexico, in states of Oaxaca (Playa Vicente) and Tabasco (Teapa), eastern Guatemala (depts. of Alta Vera Paz and Izabal), and British Honduras (Belize and Cayo districts).

3: Guatemala (Los Amates, Izabal, 1; Escobas, Izabal, 1); British Honduras (Middlesex, 1).

<sup>1</sup> *Arremon aurantirostris saturatus* Cherrie: Similar to *A. a. rufidorsalis*, but larger; the black pectoral band decidedly wider; the dusky suffusion on the sides and flanks more extensive, as well as darker, in both sexes. Wing (males), 82-86; tail, 70-73; bill, 16.

Three additional specimens, from Coban, Vera Paz, examined.



**\*Arremon aurantirostris rufidorsalis** Cassin.<sup>1</sup> EASTERN  
ORANGE-BILLED FINCH.

*Arremon rufidorsalis* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 170—Turrialba, Costa Rica (type in U. S. National Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 102, 1868—Turrialba; Frantzius, Journ. Orn., 17, p. 300, 1869 (ex Cassin).

*Arremon rufodorsalis* Salvin, Ibis, 1874, p. 308—Costa Rica (crit. on type).

*Arremon aurantirostris* (not of Lafresnaye) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 180, 1865—Greytown, Nicaragua; Salvin, Ibis, 1872, p. 317—Chontales, Nicaragua; Boucard, Proc. Zool. Soc. Lond., 1878, p. 56—San Carlos, Costa Rica; Nutting, Proc. U. S. Nat. Mus., 6, p. 400, 1883—Los Sábalo, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 324, 1886—part, Nicaragua (Chontales, Greytown) and Costa Rica (Tucurríqui, Turrialba); Selater, Cat. Bds. Brit. Mus., 11, p. 275, 1886—part, spec. f, h, Nicaragua (Chontales) and Costa Rica (Tucurríqui); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—part, Jiménez and Pacuare, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 10, p. 586, 1888—Segovia River, Honduras; Cherrie, l.c., 14, p. 343, 1891—part, Talamanca, Costa Rica; Richmond, l.c., 16, p. 490, 1893—Rio Frio, Costa Rica, and Rio Escondido, Nicaragua (habits, nest, and eggs descr.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 455, 1901—part, Honduras, Nicaragua, and Panama (monog.); Bangs, Bull. Mus. Comp. Zool., 39, p. 156, 1903—Yaruca, Honduras; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1106, 1912—part, Honduras and Nicaragua; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 341, 1932—Segovia River, Honduras.

*Arremon aurantirostris rufidorsalis* Carriker, Ann. Carnegie Mus., 6, p. 902, 1910—Caribbean Costa Rica (crit., nest and eggs descr.); Peters, Bull. Mus. Comp. Zool., 71, p. 339, 1931—Boquete Trail, Guábo, and Cricamola, Almirante Bay, Panama (crit.); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 243, 1932—Eden, Nicaragua.

*Range*.—Tropical zone of the Caribbean side of Honduras, Nicaragua, Costa Rica, and extreme northwestern Panama (Almirante Bay region).

3: Nicaragua (Lake Nicaragua, 1); Costa Rica (Siquirres, 2).

**\*Arremon aurantirostris aurantirostris** Lafresnaye. WESTERN  
ORANGE-BILLED SPARROW.

*Arremon aurantirostris* Lafresnaye, Rev. Zool., 10, p. 72, 1847—Panama (type in coll. of T. B. Wilson, now in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899);<sup>2</sup>

<sup>1</sup> *Arremon aurantirostris rufidorsalis* Cassin: Similar to *A. a. aurantirostris*, but green of upper parts somewhat darker, and the white supra-orbital stripe broader, more extended anteriorly (almost to the nostrils) and pure white for its entire length, not shaded with grayish in the postocular portion as in *A. a. aurantirostris*.

The above diagnosis is based on a series from Caribbean Costa Rica. No material is available from either Nicaragua or Honduras.

<sup>2</sup> A cotype is in the Museum of Comparative Zoology, Cambridge, Mass. (cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 391, 1930).

Des Murs, Icon. Orn., livr. 10, pl. 55, after Sept., 1847—Panama (fig. of type); Sclater, Proc. Zool. Soc. Lond., 24, p. 83, 1856—Panama (monog.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 298, 1862—Lion Hill, Panama Railroad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 351—Panama Railroad; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 102, 1868—San Mateo, Dota, and Guaitil, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1867, p. 140—Santa Fé, Veraguas; idem, l.c., 1870, p. 188—Veraguas (Cordillera del Chucú) and Chiriquí (Mina de Chorchá, Bugaba); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 324, 1886—part, Costa Rica (San Mateo, Dota, Guaitil) and Panama (Bugaba, Mina de Chorchá, Cordillera del Chucú, Santa Fé, Lion Hill); Sclater, Cat. Bds. Brit. Mus., 11, p. 275, 1886—part, spec. g, i-n, San Mateo, Costa Rica, and Panama (Santa Fé, Bugaba, Lion Hill); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—part, Trojas de Puntarenas and Pózo Azul, Costa Rica (crit.); Cherrie, Proc. U. S. Nat. Mus., 14, p. 343, 1891—part, Pózo Azul, Costa Rica; idem, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 139, 1893—Lagarto, Boruca, Térraba, and Buenos Aires, Costa Rica; Underwood, Ibis, 1896, p. 436—Miravalles, Costa Rica; Bangs, Proc. New Eng. Zool. Cl., 2, p. 32, 1900—Loma del León, Panama; idem, Auk, 18, p. 369, 1901—Divalá, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 455, 1901—part, western Costa Rica and Panama (monog.); Bangs, Auk, 24, p. 310, 1907—Boruca, Paso Real, Barránca, Lagarto, and Pózo del Río Grande, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1106, 1912—part, Costa Rica (Térraba Valley), Veraguas, and Panama; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 277, 1918—Gatún, Panama.

*Arremon aurantirostris aurantirostris* Carriker, Ann. Carnegie Mus., 6, p. 901, 1910—Pacific Costa Rica (Miravalles to the Térraba region).

**Range.**—Tropical zone of Pacific Costa Rica and Panama east to the Canal Zone.<sup>1</sup>

6: Costa Rica (Miravalles, 2; Buenos Aires, 1; Boruca, 2); Panama (Chiriquí, 1).

### ***Arremon aurantirostris strictocollaris* Todd.<sup>2</sup> TODD'S ORANGE-BILLED FINCH.**

*Arremon aurantirostris strictocollaris* Todd, Proc. Biol. Soc. Wash., 35, p. 90, July 12, 1922—"Sautata"=[Saotata], lower Río Atrato, Colombia (type

<sup>1</sup> A series from the Térraba Valley agrees with another from Panama (Chiriquí and Panama Railroad). We have no material at present from the more northern parts of Pacific Costa Rica.

<sup>2</sup> *Arremon aurantirostris strictocollaris* Todd: Nearest to *A. a. aurantirostris*, but slightly more yellowish green above; the black pectoral band narrower; under parts more extensively white with flanks and crissum paler. Size about the same.

In the whiteness of the under parts, this form resembles *A. a. occidentalis*. While the narrower pectoral band and the more yellowish green upper parts likewise lead in the direction of that race, *A. a. strictocollaris* in both respects is nearer to the nominate form, with which it also shares the large, heavy bill and the brown-

in Carnegie Museum, Pittsburgh); Bangs and Barbour, Bull. Mus. Comp. Zool., **65**, p. 229, 1922—Rio Esnápe, Darien, Panama; Griscom, l.c., **69**, p. 185, 1929—Cana, Darien; idem, l.c., **82**, p. 372, 1932—Permé, eastern Panama.

*Range*.—Tropical zone of extreme eastern Panama (Darien) and the adjacent parts of Colombia (lower Atrato).

**\*Arremon aurantirostris occidentalis** Hellmayr.<sup>1</sup> PACIFIC ORANGE-BILLED FINCH.

*Arremon aurantirostris occidentalis* Hellmayr, Proc. Zool. Soc. Lond., 1911, pp. 1118, 1119—Condoto, Rio Condoto, Pacific Colombia (type in Munich Museum); Lönnberg and Rendahl, Ark. Zool., **14**, No. 25, p. 80, 1922—Nanegal, Ecuador; Chapman, Bull. Amer. Mus. N. H., **36**, p. 574, 1917—Dabeiba, Alto Bonito, Nóvita Trail, Buenaventura, San José, Munchique, Cocal, Barbacoas, and Buena Vista (Nariño), Colombia (crit.); idem, l.c., **55**, p. 630, 1926—Esmeraldas, Manaví, and Cerro Manglar Alto, Ecuador (crit.).

*Arremon erythrorhynchus* (not of Scater, 1855) Scater, Proc. Zool. Soc. Lond., 1860, pp. 85, 274, 293—Nanegal, Babahoyo, and Esmeraldas, Ecuador; idem, Cat. Coll. Amer. Bds., p. 93, 1862—Nanegal and Babahoyo; Salvadori and Festa, Boll. Mus. Zool. Torino, **14**, No. 357, p. 21, 1899—Rio Peripa and Gualea, Ecuador (crit., synonym.).

*Arremon spectabilis* (not of Scater, 1855) Scater, Cat. Bds. Brit. Mus., **11**, p. 275, 1886—part, spec. i-n, Santa Rita, Nanegal, and Babahoyo, western Ecuador; Hartert, Nov. Zool., **5**, p. 483, 1898—part, Cachabí, Prov. Esmeraldas, Ecuador; Goodfellow, Ibis, 1901, p. 471—Santo Domingo and San Nicolas, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., **9**, p. B81, 1911—Santo Domingo and Pachijal (Esmeraldas), Ecuador.

*Arremon spectabilis occidentalis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1105, 1912—part, western Colombia and Ecuador (excl. of Chimbo).

ish feet. It is truly intermediate between the Central American and the South American representatives, as has been demonstrated by Chapman (Amer. Mus. Novit., **160**, p. 6, 1925).

Three specimens from Rio Esnápe, Darien, examined.

<sup>1</sup> *Arremon aurantirostris occidentalis* Hellmayr: Somewhat intermediate between *A. a. spectabilis* and *A. a. erythrorhynchus* in color of upper parts, which are neither dark brownish olive nor clear yellowish green, but intense olive-green with a golden hue; bend of wing lemon to gamboge yellow, never flame-orange; bill considerably longer and slenderer. Wing, 70–75, (female) 67–70; tail, 58–63, (female) 53–58; bill, 14–15½.

Birds from northwestern Ecuador (prov. Esmeraldas and Imbabura) are precisely like the Colombian ones, even in the color of the feet, which, in both series, are marked by the various collectors as “flesh-color” or “pink” in life. A “Quito” specimen does not appreciably differ either, so far as I can see.

*Additional material examined*.—Colombia: Condoto, Rio Condoto, 1; Juntas, Rio Tamana, 1; San José, 2; Juntas, Rio Dagua, 2.—Ecuador: Carondelet, Prov. Esmeraldas, 1; San Javier, Prov. Esmeraldas, 6; Lita, Prov. Imbabura, 5; Paramba, Prov. Imbabura. 5: “Quito.” 1.

*Range*.—Tropical zone of Pacific Colombia, from the Rio Sucio southwards, and western Ecuador (except southwestern section).

3: Colombia (Alto Bonita, Antioquia, Novita; Novita Trail, Cauca, 1); Ecuador (San Javier, Esmeraldas, 1).

**\**Arremon aurantirostris santarosae* Chapman.<sup>1</sup> SANTA ROSA ORANGE-BILLED FINCH.**

*Arremon aurantirostris santarosae* Chapman, Amer. Mus. Novit., 160, p. 6, Feb., 1925—Santa Rosa, Prov. del Oro, Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 630, 1926—Duran, Bucay, Chimbo, Rio Jubones, La Chonta, Santa Rosa, La Puente, Cebollal, and Rio Pullango, southwestern Ecuador.

*Arremon spectabilis* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 332—Palmar, near Guayaquil, Ecuador; Berlepsch and Taczanowski, l.c., 1883, p. 548—Chimbo; Hartert, Nov. Zool., 5, p. 483, 1898—part, Chimbo.

*Arremon aurantirostris occidentalis* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1119—part, Palmar and Chimbo.

*Arremon spectabilis occidentalis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1105, 1145, 1912—part, Chimbo (crit.).

*Range*.—Southwestern Ecuador north to the Rio Chimbo.

1: Ecuador (Puente de Chimbo, 1).

**\**Arremon aurantirostris spectabilis* Sclater.<sup>2</sup> EAST ECUADORIAN ORANGE-BILLED FINCH.**

*Arremon spectabilis* Sclater, Proc. Zool. Soc. Lond., 22, "1854," p. 114, pl. 67, pub. April, 1855—Quijos, eastern Ecuador (type in coll. of J. Gould, now in British Museum);<sup>3</sup> idem, l.c., 24, p. 82, 1856—Quijos (monog.);

<sup>1</sup> *Arremon aurantirostris santarosae* Chapman: "Most nearly resembling *A. a. erythrorhynchus*, but with a broader pectoral band and somewhat browner upper parts; similar to its near geographic ally, *A. a. occidentalis*, of western Colombia, but bill less deep at the base, vertical stripe lighter gray, superciliaries whiter, upper parts yellower green, sides and flanks 'whiter' (?); feet flesh-color instead of brownish (?); bill (in skin) paler. Wing (males), 74–76; tail, 62–66; bill, 15–15½; depth at base 7–8 mm." (Chapman, l.c.)

A single adult male from within the range ascribed to this form hardly differs from the series of *A. a. occidentalis* by slightly duller, paler dorsal surface, and perhaps a shade less yellow feet. Compared to *A. a. erythrorhynchus*, it is decidedly duller, more brownish above with deeper yellow shoulder-spot.

*Material examined*.—Ecuador: Chimbo, 2.

<sup>2</sup> *Arremon aurantirostris spectabilis* Sclater: Differs from the western races by much deeper, decidedly reddish or brownish olive back; bright orange to flame-orange bend of the wing; and reduction of the gray vertical stripe in the male sex.

*Additional material examined*.—Eastern Ecuador: road to La Concepción, 5; Rio Napo, 1; Sarayacu, 2; Rio Zamora, 1; Rio Santiago, 3.—Peru: Huambo, 1.

<sup>3</sup> The type was originally in the collection of J. Gould, and it is clearly in error that Sclater (Cat. Bds. Brit. Mus., 11, p. 275, 1886) lists a specimen from the "Rio Napo," evidently the one subsequently received through Verreaux (cf. Sclater, Proc. Zool. Soc. Lond., 1858, p. 72;=No. 548b, of Sclater's collection) as type. The real type appears to be specimen f, said to be from the "Rio Napo" and acquired from J. Gould.

Jardine, Edinb. New Phil. Journ., (n.s.), 3, p. 92, 1856—Rio Napo; Sclater, Proc. Zool. Soc. Lond., 26, p. 72, 1858—Rio Napo; idem, Cat. Coll. Amer. Bds., p. 93, 1862—Rio Napo; idem, Cat. Bds. Brit. Mus., 11, p. 275, 1886—part, spec. e-h, p, Rio Napo and Sarayacu (Ecuador) and eastern Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 72, 1889—Rio Napo; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 20, 1899—Rio Zamora and Rio Santiago, Ecuador (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1105, 1912—eastern Ecuador (Quijos, Rio Napo, Sarayacu) and northeastern Peru (Huambo); Chapman, Bull. Amer. Mus. N. H., 55, p. 629, 1926—Zamora, Rio Suno, and below San José, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 241, 1932—Sarayacu, Ecuador.

*Arremon aurantirostris spectabilis* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1118—eastern Ecuador and northern Peru (crit.); Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—San José, Ecuador.

*Arremon erythrorhynchus* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 16—Huambo, Peru; idem, Orn. Pér., 2, p. 535, 1884—Huambo.

*Range*.—Tropical and lower Subtropical zones of eastern Ecuador and northeastern Peru (Huambo, Moyobamba).

1: Peru (Moyobamba, 1).

### ***Arremon aurantirostris erythrorhynchus* Sclater.<sup>1</sup> RED-BILLED FINCH.**

*Arremon erythrorhynchus* Sclater, Proc. Zool. Soc. Lond., 23, "1855," p. 83, pl. 89, pub. June, 1855—"in Nova Granada, Bogotá" (type in coll. of J. Gould, now in British Museum); idem, l.c., p. 154, 1855—"Bogotá"; idem, l.c., 24, p. 83, 1856—"Bogotá" (monog.).

*Arremon spectabilis* (not of Sclater, 1855) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 505—Remedios, Antioquia, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 275, 1886—part, spec. a-d, "Bogotá" and Remedios, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 307, 1899—Honda, Colombia.

*Arremon aurantirostris erythrorhynchus* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1119—"Bogotá" (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 573, 1917—Chicoral and west of Honda, Magdalena Valley, and Puerto Valdivia, lower Cauca, Colombia.

*Arremon spectabilis erythrorhynchus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1106, 1912—"Bogotá" and Antioquia, Colombia.

*Range*.—Tropical zone of Colombia (Magdalena Valley west to the lower Cauca in Antioquia).

<sup>1</sup> *Arremon aurantirostris erythrorhynchus* Sclater: Much paler, clear yellowish green, above than *A. a. occidentalis*, and bend of the wing lighter lemon yellow; black chin-spot reduced in extent or even absent. A specimen from Remedios, Antioquia, by somewhat darker back, tends toward *A. a. occidentalis*.

*Material examined*.—Colombia: "Bogotá," 9; Remedios, Antioquia, 1.

**Arremon abeillei abeillei Lesson. ABEILLÉ'S FINCH.**

*Arremon abeillei* Lesson, Rev. Zool., 7, p. 435, 1844—Guayaquil, Ecuador (location of type not stated, probably in coll. of Dr. Abeillé, Bordeaux); Taczanowski, Orn. Pér., 2, p. 534, 1884—Lechugal, Prov. Tumbes, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1107, 1912 (range); Chapman, Bull. Amer. Mus. N. H., 55, p. 630, 1926—Ecuador (Manta, Chongoncito, Chongon Hills, Guayaquil, Santa Rosa, Porto Velo, Zaruma, Rio Pindo, Lunamá, Cebollal, Alamor, Guainche, Pullango) and Peru (Paletillas, Milagros, Palambla).

*Arremon abeillii* Sclater, Proc. Zool. Soc. Lond., 24, p. 82, 1856—Guayaquil (monog.).

*Arremon abeillaei* Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 744—Lechugal, Prov. Tumbes, Peru; Berlepsch and Taczanowski, l.c., 1883, p. 548—Guayaquil, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 278, 1886—Santa Rita, Ecuador.

*Range*.—Tropical zone of southwestern Ecuador (from Manta, Manaví, southwards) and northwestern Peru (depts. of Tumbes and Piura).<sup>1</sup>

**Arremon abeillei nigriceps Taczanowski.<sup>2</sup> BLACK-HEADED FINCH.**

*Arremon nigriceps* Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 196—Callacate, upper Marañón Valley, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 176, 1927); idem, Orn. Pér., 2, p. 535, 1884—Callacate; Sclater, Cat. Bds. Brit. Mus., 11, p. 277, 1886—Callacate; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1107, 1912—Callacate.

*Range*.—Tropical zone of northwestern Peru (Callacate and Conloco, upper Marañón Valley, Prov. Jaen).

**Genus ARREMONOPS Ridgway**

*Arremonops* Ridgway, Man. N. Amer. Bds., 2nd ed., pp. 434, 605, 1896—type, by orig. desig., *Embernagra rufivirgata* Lawrence.

**\*Arremonops rufivirgatus rufivirgatus (Lawrence). TEXAS SPARROW.**

*Embernagra rufivirgata* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 5, p. 112, pl. 5, fig. 2, May, 1851—"Rio Grande in Texas"—Brownsville, Texas (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Baird, Rep. Pacif. R. R. Surv., 9, p. 487, 1858—part, Texas (Ringgold Barracks) and Mexico (Nuevo León); idem, Bds.

<sup>1</sup> Nine specimens from southwestern Ecuador examined.

<sup>2</sup> *Arremon abeillei nigriceps* Taczanowski, though differing by olive-green back, rump, and lesser wing coverts, as well as by flesh-colored feet, buffy tinged lower abdomen, and yellow bend of the wing, is otherwise so similar in style of coloration and proportions that I have no hesitation in associating it in the same specific group with *A. abeillei*, which it obviously replaces in the upper Marañón Valley.

*Material examined*.—Peru: Callacate, 1 (the type).

N. Amer., atlas, pl. 55, fig. 2, 1860; Merrill, Bull. Nutt. Orn. Cl., 1, p. 89, 1876—Fort Brown, Texas (breeding habits, nest, and eggs descr.); idem, Proc. U. S. Nat. Mus., 1, p. 128, 1878—Fort Brown (song, nest, and eggs); Sennett, Bull. U. S. Geol. & Geogr. Surv. Terr., 4, p. 22, 1878—Brownsville and Hidalgo, Texas; idem, l.c., 5, p. 394, 1879—Lomita, Texas (descr. of young); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 411, 1886—Rio Grande Valley and Nuevo León; Sharpe, Cat. Bds. Brit. Mus., 12, p. 760, 1888—Rio Grande Valley to northern Mexico; Chapman, Bull. Amer. Mus. N. H., 3, p. 326, 1891—Corpus Christi, Texas; Rhoads, Proc. Acad. Nat. Sci. Phila., 1892, p. 109—Corpus Christi and San Patricio, Texas (breeding).

*Embernagra rufivirgata* ♂ *rufivirgata* Ridgway, Proc. U. S. Nat. Mus., 1, pp. 248, 249, 1878—Rio Grande Valley, Texas (crit.).

*Arremonops rufivirgatus rufivirgatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 447, 1901—southern Texas to northeastern Mexico (monog.); Phillips, Auk, 28, p. 89, 1911—Tamaulipas (Matamoros, Guiaves, Rio Cruz, Rio Santa, San Fernando, Caballeros, Alta Mira, Rio Martinez); Todd, Proc. Biol. Soc. Wash., 36, p. 44, 1923—northeastern Mexico to Texas (crit.).

*Arremonops rufivirgatus* Friedmann, Auk, 42, p. 551, 1925—Rio Grande Valley, Texas (habits); Griscom and Crosby, Auk, 43, p. 26, 1926—Brownsville, Texas.

*Zonotrichia plebeja* (Lichtenstein MS.) Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, p. 413, 1856—quoted as synonymous with *Embernagra rufivirgata*.

*Range*.—Southeastern Texas (Fort Clark, Corpus Christi, Brownsville, San Patricio) south to Tamaulipas, Nuevo León, and San Luis Potosí.

28: Texas (Corpus Christi, 2; Harlingen, 4; Brownsville, 5); Mexico (Tampico, Tamaulipas, 13; Matamoros, Tamaulipas, 3; "Tamaulipas," 1).

### ***Arremonops rufivirgatus crassirostris* (Ridgway). CÓRDOBA SPARROW.**

[*Embernagra rufivirgata*] ♂ *crassirostris* (Baird MS.) Ridgway, Proc. U. S. Nat. Mus., 1, pp. 248, 249, 1878—Córdoba and Orizaba, Mexico (type in U. S. National Museum).

*Embernagra rufivirgata* (not of Lawrence) Sclater, Proc. Zool. Soc. Lond., 24, p. 306, 1856—Córdoba, Vera Cruz; idem, l.c., 27, p. 380, 1859—Playa Vicente, Oaxaca; idem, Cat. Coll. Amer. Bds., p. 117, 1862—Orizaba, Vera Cruz; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—hot and temperate regions of Vera Cruz.

*Embernagra crassirostris* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 412, 1886—Mexico (Córdoba, Vera Cruz, and Playa Vicente); Sharpe, Cat. Bds. Brit. Mus., 12, p. 761, 1888—southern Mexico.

*Arremonops rufivirgatus crassirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 448, 1901—southeastern Mexico (monog.); Todd, Proc. Biol.

Soc. Wash., 36, p. 43, 1923—southeastern Mexico (crit.); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 485, 1927—Presidio and Motzorong, Vera Cruz.

*Range*.—Tropical zone of southeastern Mexico, in states of Vera Cruz, Puebla, and Oaxaca.

**\*Arremonops rufivirgatus verticalis (Ridgway).<sup>1</sup> SCHOTT'S SPARROW.**

[*Embernagra rufivirgata*] *γ verticalis* Ridgway, Proc. U. S. Nat. Mus., 1, pp. 248, 249, 1878—Mérida, Yucatan, Mexico (type in U. S. National Museum).

*Embernagra rufivirgata* (not of Lawrence, 1851) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 201, 1860—Mérida.

*Embernagra chloronota* (not of Salvin) Boucard, Proc. Zool. Soc. Lond., 1883, p. 444—Yucatan (in part).

*Embernagra verticalis* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 414, 1886—Mérida, Yucatan; Salvin, Ibis, 1888, p. 262—Meco Island, Yucatan.

[*Embernagra striaticeps*] subsp. *δ Embernagra verticalis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 765, 1888—Yucatan and Meco Island.

*Embernagra rufivirgata verticalis* Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 209—Tekanto, Yucatan.

*Arremonops rufivirgata striaticeps* (not *Embernagra striaticeps* Lafresnaye) Chapman, Bull. Amer. Mus. N. H., 8, p. 280, 1896—Chichen-Itzá, Yucatan (habits).

*Arremonops verticalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 451, 1901—Yucatan (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 143, 1906—Chichen-Itzá; Todd, Proc. Biol. Soc. Wash., 36, p. 42, 1923—Yucatan and Campeche (crit.); Griscom, Amer. Mus. Novit., 235, p. 16, 1926—eastern Yucatan.

*Range*.—Northern Yucatan and Campeche, including Meco Island, southeastern Mexico.

2: Mexico (Yucatan, 2).

**Arremonops rufivirgatus sinaloae Nelson.<sup>2</sup> MAZATLAN SPARROW.**

*Arremonops superciliosus sinaloae* Nelson, Proc. Biol. Soc. Wash., 13, p. 28, 1899—near Mazatlan, Sinaloa, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 450, 1901—southern Sinaloa and Tepic (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 365, 1905—

<sup>1</sup> A well-marked race, though clearly conspecific with *A. rufivirgatus*. It is hard to understand that it was ever associated with the *A. controstris* group.

Four specimens from Yucatan examined.

<sup>2</sup> This and the three succeeding forms have been regarded by recent authors as constituting a separate specific entity. The differences between the *superciliosus* group and the *rufivirgatus* series are, however, slight, consisting mainly of the coloration of the crown-stripes. In other respects and proportions they agree closely, and as they replace each other geographically, I do not see any reason why they should not be merged into one "formenkreis."



Escuinapa and Juanna Gomez River, Sinaloa; Todd, Proc. Biol. Soc. Wash., 36, p. 43, 1926—southern Sinaloa and Tepic (crit.); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 47, 1927—Labrados, Sinaloa.

*Embernagra rufivirgata* (not of Lawrence) Baird, Rep. Pacif. R. R. Surv., 9, p. 487, 1858—part, Mazatlan, Sinaloa.

*Range*.—Tropical zone of western Mexico, in southern Sinaloa (Mazatlan, Rosario, Escuinapa, Juanna Gomez River, Labrados) and Nayarit.

**\*Arremonops rufivirgatus sumichrasti** (Sharpe). ACAPULCO SPARROW.

*E* [*mbernagra*] *sumichrasti* Sharpe, Cat. Bds. Brit. Mus., 12, p. 762 (in text), 1888—"Huamela"=Huamelula, southern Oaxaca (type in British Museum).

*Embernagra rufivirgata* (not of Lawrence, 1851) Lawrence, Bull. U. S. Nat. Mus., 4, p. 22, 1876—Huamelula, Oaxaca.

[*Embernagra rufivirgata*]  $\beta$  *crassirostris* Ridgway, Proc. U. S. Nat. Mus., 1, p. 249, 1878—part, Venado Island, Mexico.

*Embernagra superciliosa* (not of Salvin, 1864) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 412, 1886—part, Huamelula, Oaxaca; Sharpe, Cat. Bds. Brit. Mus., 12, p. 761, 1888—part, spec. d, Huamelula.

*Arremonops rufivirgata sumichrasti* Nelson, Auk, 15, p. 157, 1898—from the Chiapas border north along the west coast of Mexico to Colima.

*Arremonops superciliosus sumichrasti* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 450, 1901—southwestern Mexico from Colima to Oaxaca; Todd, Proc. Biol. Soc. Wash., 36, p. 43, 1923—southern Mexico (crit.); Griscom, Bull. Mus. Comp. Zool., 75, p. 421, 1934—Acapulco and Coyucá, Guerrero.

*Range*.—Tropical zone of Pacific Mexico, in states of Colima (Manzanillo), Guerrero (Acapulco, Coyucá), and Oaxaca (Huamelula, Puerto Angel) to near the Chiapas border.

4: Mexico (Colima, 4).

**Arremonops rufivirgatus chiapensis** Nelson.<sup>1</sup> CHIAPAS SPARROW.

*Arremonops superciliosus chiapensis* Nelson, Proc. Biol. Soc. Wash., 17, p. 152, 1904—San Bartolomé, Chiapas, Mexico (type in U. S. National Museum); Todd, l.c., 38, p. 89, 1925—valley of the Chiapas River, Chiapas (crit.).

*Range*.—Tropical zone of southeastern Mexico, in State of Chiapas (valley of the Chiapas River).

<sup>1</sup> *Arremonops rufivirgatus chiapensis* Nelson: Nearest to *A. r. sumichrasti*, but top of head darker; vertical stripe grayer; back dark green as in *A. r. superciliosus*; distribution of buffy tone on under parts as in *sumichrasti*, but color of a deeper creamy shade; size of *sumichrasti*.

According to Todd, this form, with which we are not acquainted, differs from *A. r. superciliosus* by the grayish suffusion of the upper parts, the vertical stripe and the sides of the head in particular being grayish instead of buffy; paler brown lateral crown-stripes; and much more buffy breast and sides.

**\*Arremonops rufivirgatus superciliosus** (Salvin). NICOYA SPARROW.

*Embernagra superciliosa* Salvin, Proc. Zool. Soc. Lond., 1864, p. 582—"Costa Rica (Nicoya)" (type, from Bebedéro, in Salvin-Godman Collection, now in British Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—Nicoya; Frantzius, Journ. Orn., 17, p. 301, 1869—Costa Rica; Nutting, Proc. U. S. Nat. Mus., 5, p. 391, 1882—La Palma de Nicoya; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 412, 1886—part, Nicoya, Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 12, p. 761, 1888—part, spec. a-c, Costa Rica (Bebedéro); Underwood, Ibis, 1896, p. 436—Miravalles, Bebedéro, and Bagáces.

*Arremonops superciliosus superciliosus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 449, 1901—Costa Rica (Bebedéro and La Palma, Gulf of Nicoya); Bangs, Auk, 24, p. 310, 1907—Barránca de Puntarenas; Carriker, Ann. Carnegie Mus., 6, p. 904, 1910—Pacific Costa Rica (Santo Domingo de San Mateo, Coyolár, Bolson, Coralillo, Miravalles, Bebedéro, Esparta) (nest and eggs); Todd, Proc. Biol. Soc. Wash., 36, p. 42, 1923—Costa Rica (crit.).

*Range*.—Tropical zone of Pacific Costa Rica, from Santo Domingo de San Mateo north through Nicoya and Guanacaste to the Nicaraguan border.<sup>1</sup>

3: Costa Rica (Miravalles, 1; Las Cañas, 2).

**Arremonops tocuyensis** Todd.<sup>2</sup> TOCUYO SPARROW.

*Arremonops tocuyensis* Todd, Ann. Carnegie Mus., 8, p. 198, 1912—Tocuyo, Lara, Venezuela (type in Carnegie Museum); idem and Carriker, l.c., 14, p. 529, 1922—Rio Hacha and Arroyo de Arenas, La Goajira, Colombia

<sup>1</sup> Six additional specimens from Bebedéro, Guanacaste, examined.

<sup>2</sup> *Arremonops tocuyensis* Todd: "Above plain olive; wings and tail dusky, externally edged with dull olive green, the secondaries with cinnamon-rufous; lesser and median wing coverts also edged externally with olive green, the greater coverts more brownish; edge of the wing pale yellow; under wing coverts white, tinged with yellow; pileum with two broad lateral stripes of black mixed with brown, separated by a broad median stripe of smoke-gray, but tending to coalesce on the hindneck; broad superciliaries also smoke-gray, slightly paler than the median stripe; a transocular stripe of brownish black; sides of the head and neck smoke-gray; below white, the breast tinged with smoke-gray, and the flanks and under tail coverts buffy cream-color; feet horn color; bill black, leaden blue below."

Wing, (Tocuyo) 72, (Rio Hacha) 65-67, (females, Rio Hacha) 61-62; tail, 52-56, (females) 47-54; bill, 13<sup>1</sup>/<sub>2</sub>-15.

This species, which we have not seen, is stated by Mr. Todd to belong to that section of the genus in which the pileum is paler gray, and the lateral stripes tend to be brown or brownish (*A. rufivirgatus*). "It is apparently most closely related to *A. [rufivirgatus] verticalis* of Yucatan, from which it differs in rather smaller size, relatively stouter bill, grayer (less greenish) coloration, and blacker head-stripes. These latter are black in front, but more or less mixed with brown posteriorly. The species is perfectly distinct from *A. conirostris*, for, while the under parts are about the same in color, the upper surface is much paler and grayer, the pileum and sides of the head are also paler gray, the lateral crown-stripes and postorbital

(crit.); Todd, Proc. Biol. Soc. Wash., 36, p. 42, 1923—arid coast of northwestern Venezuela (Tocuyo, Lara; Paraguana, Falcón) and La Goajira, Colombia (crit.).

*Range*.—Arid Tropical zone of northwestern Venezuela (Tocuyo, southwest of Barquisimeto, Lara; Paraguana Peninsula, Falcón) and northeastern Colombia (Rio Hacha and Arroyo de Arenas, La Goajira).

**\*Arremonops conirostris chrysoma** (Sclater).<sup>1</sup> SCLATER'S SPARROW.

*Embernagra chrysoma* Sclater, Proc. Zool. Soc. Lond., 28, p. 275, 1860—Babahoyo, Ecuador (type in coll. of P. L. Sclater, now in British Museum); idem, l.c., 28, p. 293, 1860—Esmeraldas; idem, Cat. Coll. Amer. Bds., p. 117, pl. 11, 1862—Babahoyo and Esmeraldas; Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 332—Palmar, near Santa Rosa, Prov. Guayas, Ecuador; Goodfellow, Ibis, 1901, p. 475—Gualea, Ecuador.

*Embernagra striaticeps* (not of Lafresnaye) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 551—Chimbo, Ecuador; idem, l.c., 1885, p. 85—Yaguachi, Ecuador.

[*Embernagra striaticeps*] subsp.  $\beta$  *Embernagra chrysoma* Sharpe, Cat. Bds. Brit. Mus., 12, p. 764, 1888—Ecuador ("Quito," Balzar, Babahoyo, Esmeraldas).

*Embernagra striaticeps chrysoma* Hartert, Nov. Zool., 5, p. 485, 1898—Cachaví, Chimbo, and Paramba, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B79, 1911—Mindó and Santo Domingo, Ecuador.

*Arremonops conirostris chrysoma* Chapman, Bull. Amer. Mus. N. H., 36, p. 570, 1917—Tumaco, Barbacoas, and Buena Vista, Nariño, Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 79, 1922—above Mindó and road to Nanegal, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 626, 1926—western Ecuador (Esmeraldas, Manaví, Mindó, Duran, Bucay, Chimbo, Rio Jubones, Santa Rosa, La Chonta, Zaruma, Port Ovelo, Guainche, Cebollal, Alamor); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 235, 1932—La Palma, Rio Babahoyo, Ecuador.

*Arremonops striaticeps chrysoma* Todd, Proc. Biol. Soc. Wash., 36, p. 40, 1923—Pacific slope of Ecuador and Colombia north to the lower Atrato (crit.).

stripes are browner, approaching thus *A. (r.) superciliosus*, and the size is much less." (Todd, l.c.)

From the preceding account it results that *A. tocuyensis* must be close to the *rufivirgatus* group, of which it is probably a geographical race. Its small size, in conjunction with its range, seems to preclude any near affinity to the *A. conirostris* section.

<sup>1</sup> *Arremonops conirostris chrysoma* (Sclater): Exceedingly close to *A. c. striaticeps*, of Panama, but under tail coverts mainly yellowish (instead of buffy), flanks less brownish, and tail more greenish, particularly below. The difference in the coloration of the pileum alluded to by Todd is not borne out by my series.

*Additional material examined*.—Ecuador: Ventana, Prov. Esmeraldas, 1; San Javier, Prov. Esmeraldas, 2; Paramba, Prov. Imbabura, 3; above Mindó, 2; Gualea, 1; Chimbo, 3; Zaruma, 2.

*Range*.—Tropical zone of western Ecuador and Pacific Colombia north to the lower Atrato (Saotata).

3: Ecuador (Puente de Chimbo, 2; San Juan, 1).

**Arremonops conirostris inexpectatus** Chapman.<sup>1</sup> ANDALUCIA SPARROW.

*Arremonops conirostris inexpectata* Chapman, Bull. Amer. Mus. N. H., 33, p. 184, March, 1914—west slope of eastern Andes below Andalucia, sources of the Magdalena River, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 570, 1917—Andalucia.

*Arremonops conirostris inexpectata* Todd, Proc. Biol. Soc. Wash., 36, p. 39, 1923—headwaters of the Magdalena River (crit.).

*Range*.—Tropical zone at the head of the Magdalena River, Colombia (Andalucia).

**\*Arremonops conirostris conirostris** (Bonaparte). BONAPARTE'S SPARROW.

*Arremon conirostris* Bonaparte, Consp. Gen. Av., 1, (2), p. 488, 1850—"Brazil," errore, = Colombia (type in Paris Museum examined);<sup>2</sup> Sclater, Proc. Zool. Soc. Lond., 23, p. 154, 1855—"Bogotá" and Santa Marta, Colombia.

*Embernagra conirostris* Sclater, Cat. Coll. Amer. Bds., p. 117, 1862—Santa Marta and "Bogotá"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Carúpano [Sucre], Venezuela; Salvin and Godman, Ibis, 1880, p. 123—Santa Marta, Colombia; Berlepsch, Journ. Orn., 32, p. 296, 1884—Bucaramanga, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—Ambalema, Colombia.

[*Embernagra striaticeps*] subsp. *a* *Embernagra conirostris* Sharpe, Cat. Bds. Brit. Mus., 12, p. 763, 1888—part, spec. a-f, Colombia (Bogotá, Santa Marta) and Venezuela (Carúpano).

*Embernagra striaticeps conirostris* Phelps, Auk, 14, p. 364, 1897—Cumanacoa and San Antonio [Bermúdez], Venezuela.

<sup>1</sup> *Arremonops conirostris inexpectatus* Chapman: Somewhat intermediate between *A. c. conirostris* and *A. c. chrysoma*, but markedly smaller than either. Body plumage very nearly the same as in *conirostris*, but wings and tail bright yellowish green as in *chrysoma*. Wing (two males), 71, 72; tail, 66.

In spite of its isolated habitat, this form is so decidedly intermediate between the dull-backed races and those with bright yellowish green dorsal surface that their conspecific affinity cannot be questioned.

*Material examined*.—Colombia: Andalucia, 2.

<sup>2</sup> The type, which we have recently re-examined, has no history. It was acquired by the Paris Museum in 1837 with a miscellaneous lot of birds of which no records exist in the Museum registers. In spite of its soiled and somewhat faded condition, its pertinence to the form here designated as *A. c. conirostris* is beyond doubt. In size (wing, 77; tail, 69; bill, 15), it agrees particularly well with Bogotá skins, which it also resembles in the pronounced buffy suffusion of the flanks. The throat and foreneck are decidedly more buffy than in any other specimen seen, but we do not attach much importance to this feature, as there is some variation in other forms of this group with respect to the coloration of these parts.

*Arremonops conirostris canens* Bangs, Proc. Biol. Soc. Wash., 12, p. 140, June 3, 1898—"Santa Marta," Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 389, 1930); Allen, Bull. Amer. Mus. N. H., 21, p. 291, 1905—Bonda, Colombia (nest and eggs descr.).

*Arremonops venezuelensis* Ridgway, Auk, 15, p. 228, July, 1898—Puerto Cabello [Carabobo], Venezuela (type in U. S. National Museum); Bangs, Proc. Biol. Soc. Wash., 13, p. 104, 1899—Santa Marta (crit.); Allen, Bull. Amer. Mus. N. H., 13, p. 163, 1900—Bonda; Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 175, 1901—La Guayra, Venezuela.

*Arremonops canens* Bangs, Proc. Biol. Soc. Wash., 13, p. 103, 1899—Santa Marta (crit.); Allen, Bull. Amer. Mus. N. H., 13, p. 164, 1900—Santa Marta.

*Buarremon assimilis* (not *Tanagra assimilis* Boissonneau) Allen, Bull. Amer. Mus. N. H., 13, p. 167, 1900—Bonda (plumages); idem, l.c., 21, p. 276, 1905 (crit.).

*Arremonops conirostris venezuelensis* Berlepsch and Hartert, Nov. Zool., 9, p. 29, 1902—Altigracia and Caicara, Orinoco, Venezuela; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 69, 1912—Las Guiguas and Cumbre Chiquita, Carabobo, Venezuela (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 197, 1916—Caicara, Orinoco, Venezuela (nest and eggs descr.).

*Arremonops conirostris conirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 453, 1901—part, Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 569, 1917—Colombia (Puerto Berrio, Malena, Nare, Honda, Chicoral, Buena Vista, Villavicencio); Todd and Carriker, Ann. Carnegie Mus., 14, p. 526, 1922—Bonda, Dibulla, Mamatoco, Tucurinea, and Loma Larga, Santa Marta region, Colombia (crit.); Todd, Proc. Biol. Soc. Wash., 36, p. 38, 1923—Venezuela and Colombia west to the Sinú River (monog.); Darlington, Bull. Mus. Comp. Zool., 71, p. 420, 1931—Rio Frio, Magdalena, Colombia.

*Range*.—Tropical zone of northern Venezuela south to the Orinoco Valley (but excepting the humid section south of Lake Maracaibo) and eastern Colombia (eastern base of eastern Andes in Terr. de San Martín and State of Boyacá; Magdalena Valley excepting its headwaters; Santa Marta region, west through Magdalena and Bolívar to the Sinú River).<sup>1</sup>

<sup>1</sup> Birds from Santa Marta (*A. canens*) appear to be exactly like typical *conirostris* from eastern Colombia (Magdalena Valley and "Bogotá"), this conclusion having already been reached by Mr. Todd on independent investigation. Specimens from the north coast of Venezuela and the Orinoco Valley, while similar in coloration, are on average a trifle smaller, but this divergency is slight and so largely obliterated by individual variation that the recognition of an additional form (*venezuelensis*) seems hardly warranted.

*Additional material examined*.—Venezuela: Caicara, Orinoco, 4; inland of Cumaná (San Antonio, Los Palmares, etc.), 6; Rio Maméra, Caracas, 2; San Esteban Valley, Carabobo, 8; Puerto Cabello, 2.—Colombia: "Bogotá," 10; Bucaramanga, 2; Aracataca, 2; Santa Marta, 4.

19: Colombia (Cartagena, Bolívar, 1; Puerto Zapote, Bolívar, 1; "Bogotá," 1; Honda, Magdalena River, 1; Malena, Antioquia, 1); Venezuela (Cocollar, Sucre, 8; Caracas, 3; Macuto, Caracas, 1; Puerto Cabello, 2).

**\*Arremonops conirostris umbrinus Todd.<sup>1</sup> MARACAIBO SPARROW.**

*Arremonops conirostris umbrinus* Todd, Proc. Biol. Soc. Wash., 36, p. 38, 1923 Santa Elena, Mérida, Venezuela (type in Carnegie Museum).

[*Embernagra striaticeps*] subsp. *a* *Embernagra conirostris* (not *Arremon conirostris* Bonaparte) Sharpe, Cat. Bds. Brit. Mus., 12, p. 763, 1888—part, spec. g, Tachira, Venezuela.

*Range*.—Humid Tropical zone south of Lake Maracaibo, in states of Mérida, Tachira, and Zulia, and the adjacent section of northeastern Colombia (El Guayabal, ten miles north of Cucuta, Santander del Norte).

15: Venezuela (Catatumbo River, Zulia, 2; Encontrados, Zulia, 2; Colón, Tachira, 8); Colombia (El Guayabal, 10 miles north of Cucuta, Santander del Norte, 3).

**\*Arremonops conirostris striaticeps (Lafresnaye).<sup>2</sup> LAFRESNAYE'S SPARROW.**

*Embernagra striaticeps* Lafresnaye, Rev. Mag. Zool., (2), 5, p. 61, 1853—Panama (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 388, 1930); Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 352—Panama; Salvin, l.c., 1883, p. 422—Panama; Salvin and Godman, Biol. Centr-

<sup>1</sup> *Arremonops conirostris umbrinus* Todd: Similar to *A. c. conirostris*, but decidedly darker throughout; vertical stripe, superciliaries, and sides of the head neutral gray instead of light neutral gray; back mostly dark gray, shaded with Saccardo's olive, especially posteriorly; wings externally darker, citrine to dark citrine rather than pyrite yellow. Wing, 76–80, (female) 73–76; tail, 66–72, (female) 65–68.

A well-marked race by reason of its duskier coloration. As a rule, the back is mostly dark gray in its anterior portion, and if shaded with olivaceous, as is sometimes the case, particularly in immature birds, the tone is decidedly duller and less yellowish, Saccardo's olive rather than citrine. The darker gray of the head and the duller, less yellowish outer aspect of the wings are other distinctive features.

This form is clearly restricted to the humid country south of Lake Maracaibo, which owns so many peculiar races. The specimens from El Guayabal are in every respect typical.

<sup>2</sup> *Arremonops conirostris striaticeps* (Lafresnaye) is easily distinguished from *A. c. conirostris* by the uniform bright citrine coloration of the back. Besides, the inner flanks are more decidedly shaded with greenish, and the under tail-coverts are much brighter yellowish buff. It is exceedingly close to, and sometimes barely separable from, *A. c. chrysoma*, of Pacific Colombia and Ecuador.

Birds from extreme eastern Darien agree with a Panama series.

*Additional material examined*.—Panama: Paraiso Station, 1; Loma del León, 3; Permé, 2; Obaldia, 1.

Amer., Aves, 1, p. 414, 1886—part, Panama (Lion Hill, Obispo, Panama City); Sharpe, Cat. Bds. Brit. Mus., 12, p. 762, 1888—part, spec. f-k, p. Panama (Paraiso Station, Panama).

*Embernagra conirostris* (not *Arremon conirostris* Bonaparte) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 332, 1861—Panama Railroad.

*Arremon conirostris* Bangs, Proc. New Engl. Zool. Cl., 2, p. 32, 1900—Loma del León, Panama; Hallinan, Auk, 46, p. 321, 1924—Sosa Hill, Farfan, and Mindi, Panama.

*Arremonops conirostris conirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 453, 1901—part, Panama; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 222, 1906—savanna of Panama; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 276, 1918—Gatún and Fort Lorenzo, Panama.

*Arremonops striaticeps striaticeps* Todd, Proc. Biol. Soc. Wash., 36, p. 40, 1923—Panama (crit.); Griscom, Bull. Mus. Comp. Zool., 69, p. 185, 1929—Cana, Darien; idem, l.c., 72, p. 372, 1932—Permé and Obaldia, Panama; idem, l.c., 78, p. 381, 1935—eastern Panama.

*Range*.—Tropical zone of eastern Panama, from the Canal Zone east to the Colombian line.

9: Panama (Colón, 8; unspecified, 1).

**\**Arremonops conirostris richmondi* Ridgway.<sup>1</sup> RICHMOND'S SPARROW.**

*Arremonops richmondi* Ridgway, Auk, 15, p. 228, July, 1898—Greytown, Nicaragua (type in U. S. National Museum).

*Embernagra conirostris* (not *Arremon conirostris* Bonaparte) Sclater, Proc. Zool. Soc. Lond., 24, p. 143, 1856—David, Chiriquí.

*Arremonops conirostris* Bangs, Auk, 18, p. 370, 1901—Divalá, Chiriquí.

*Embernagra striaticeps* (not of Lafresnaye) Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 170—Angostura, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 181, 1866—Greytown, Nicaragua; Salvin, Proc. Zool. Soc. Lond., 1867, p. 142—Veraguas (Cordillera de Tolé, Santa Fé) and Chiriquí (David); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—Angostura, Costa Rica; Frantzius, Journ. Orn., 17, p. 301, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 190—Chiriquí (Bugaba) and Veraguas (Chitrá, Calovévora); Boucard, l.c., 1878, p. 56—San Carlos and (seen at) Puntarenas, Costa Rica; Nutting, Proc. U. S. Nat. Mus., 6, p. 401, 1884—Los Sábalos, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 414, 1886—part, Nicaragua, Costa Rica, and western Panama (David, Bugaba, Chitrá, Cordillera de Tolé, Calovévora, Santa Fé); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 112, 1887—Costa Rica

<sup>1</sup> *Arremonops conirostris richmondi* Ridgway: Very similar to *A. c. striaticeps*, but gray of head darker; back brighter, purer green; gray of chest and flanks darker.

Birds from Chiriquí agree with others from Costa Rica. We have not seen any material from Veraguas or Honduras.

*Additional material examined*.—Nicaragua: Los Sábalos, 2.—Costa Rica: Pózo Azul de Pirris, 2; Puerto Jiménez, Golfo Dulce, 2; Castilla, Rio Reventazón, 2; Waldeck, near Puerto Limón, 1.—Panama: Bugaba, Chiriquí, 5.

(Las Trojas, Pózo Azúl de Pirris, Naránjo de Cartago, Angostura); Ridgway, Proc. U. S. Nat. Mus., 10, p. 587, 1887—Segovia River, Honduras; Sharpe, Cat. Bds. Brit. Mus., 12, p. 762, 1888—part, spec. a-e, l-o, Nicaragua (Los Sábalos), Costa Rica (Tucurríqui, Bebedéro, Angostura), Chiriquí (Bugaba), and Veraguas (Chitrá, Santa Fé, Cordillera de Tolé); Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 140, 1893—Costa Rica (Palmar, Boruca, Térraba, Buenos Aires); Richmond, Proc. U. S. Nat. Mus., 16, p. 493, 1893—Rio Escondido, Nicaragua (habits, nest, and eggs); Underwood, Ibis, 1896, p. 436—Miravalles and Bagáces, Costa Rica.

*Arremonops conirostris richmondi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 453, 1901—southern Honduras to Veraguas (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 70, 1902—Boquete and Bugaba, Chiriquí; idem, Auk, 24, p. 310, 1907—Costa Rica (Boruca, Barránca, Lagarto, Pózo del Rio Grande); Carriker, Ann. Carnegie Mus., 6, p. 903, 1910—Costa Rica (habits, nest, and eggs); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 280, 1910—Guayábo, Costa Rica.

*Arremonops striaticeps richmondi* Todd, Proc. Biol. Soc. Wash., 36, p. 40, 1923—southern Honduras to Chiriquí (crit.); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 461, 1928—Almirante and Chiriquicito, Almirante Bay, Chiriquí; Peters, Bull. Mus. Comp. Zool., 71, p. 338, 1931—Almirante Bay region of Panama (Changuinola, Almirante, Quebrada Nigua); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 242, 1932—Eden, Nicaragua; Griscom, Bull. Mus. Comp. Zool., 78, p. 381, 1935—western half of Panama.

*Range*.—Tropical zone from the southern border of Honduras (Segovia River=Rio Coco) through Nicaragua and Costa Rica to western Panama (Chiriquí and Veraguas).

25: Nicaragua (San Emilio, Lake Nicaragua, 2); Costa Rica (Miravalles, 1; Juan Viñas, 2; Guayábo, 4; Limón, 12; Matina, 2; El General, 2).

### ***Arremonops conirostris centratus* Bangs.<sup>1</sup> HONDURAS**

#### **SPARROW.**

*Arremonops conirostris centratus* Bangs, Bull. Mus. Comp. Zool., 39, p. 156, July, 1903—Ceiba, north coast of Honduras (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 389, 1930).

*Embernagra striaticeps* (not of Lafresnaye) Ridgway, Proc. U. S. Nat. Mus., 10, p. 580, 1887—Trujillo, Honduras.

<sup>1</sup> *Arremonops conirostris centratus* Bangs: Described as similar to *A. c. richmondi*, but slightly smaller, especially the bill; inner secondaries without any brownish tinge; breast paler gray; flanks less greenish; under tail coverts less buffy. Wing (female), 72; tail, 67; bill, 15–16.

Todd considers this form to be doubtfully maintainable pending the receipt of additional material. The smaller size and shorter bill would seem to indicate an approach to *A. c. chloronota*, which is said to exist already at San Pedro Sula in the northwestern corner of Honduras.



*Arremonops striaticeps centratus* Todd, Proc. Biol. Soc. Wash., 36, p. 41, 1923—north coast of Honduras (crit.).

*Range.*—Tropical zone of northern Honduras (Ceiba, Trujillo).

**\**Arremonops conirostris chloronotus* (Salvin).<sup>1</sup> GREEN-BACKED SPARROW.**

*Embernagra chloronota* Salvin, Proc. Zool. Soc. Lond., 1861, p. 202—"in Prov. Verae Pacis regione calida" (type, from Choctum, Guatemala, in Salvin-Godman Collection, now in British Museum); idem, Ibis, 1861, p. 353—Chisec, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 117, 1862—Guatemala; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 44, 1878—Guatemala; idem, Proc. Zool. Soc. Lond., 1883, p. 444—Yucatan (in part); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 413, 1886—Yucatan (Chable), British Honduras, and Guatemala (Choctum, Chisec).

*Arremonops chloronota(us)* Nelson, Auk, 15, p. 157, 1898—Yajalón, eastern Chiapas; Lantz, Trans. Kans. Acad. Sci., 16, p. 222, 1899—Cayo, British Honduras; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 452, 1901—southeastern Mexico to northwestern Honduras (monog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 117, 1907—Los Amates, Guatemala; Peters, Auk, 30, p. 380, 1913—Camp Mengel and Xcopen, Quintana Roo; Todd, Proc. Biol. Soc. Wash., 36, p. 41, 1923—northern Honduras to the Isthmus of Tehuantepec (crit.).

*Arremonops striaticeps chloronotus* Austin, Bull. Mus. Comp. Zool., 69, p. 390, 1929—Cayo, British Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 368, 1932—Guatemala (Secanquim, Chिमoxan, Finca Chamá); van Tyne, Univ. Mich. Mus. Zool., Misc. Pub., 27, p. 43, 1935—northern Petén, Guatemala (Uaxactun, Chuntuquí, Pacomón, La Libertad).

[*Embernagra striaticeps*] subsp.  $\gamma$  *Embernagra chloronota* Sharpe, Cat. Bds. Brit. Mus., 12, p. 764, 1888—Guatemala (Choctum, Chisec), British Honduras, and Yucatan (Chable).

*Range.*—Tropical zone of southeastern Mexico, in states of Chiapas (Yajalón, Palenque), Campeche (Apazote), Tabasco (Frontera, Monte Cristo), and Quintana Roo (Camp Mengel, Xcopen), southern Yucatan (Chable), Guatemala, British Honduras, and northwestern Honduras (San Pedro Sula).

3: Guatemala (Los Amates, 2; "unspecified," 1).

**Genus OBERHOLSERIA Richmond**

*Chlorura* (not *Chlorurus* Swainson) Sclater, Cat. Coll. Amer. Bds., p. 117, 1862—type, by monotypy, *Fringilla chlorura* Audubon.

<sup>1</sup> *Arremonops conirostris chloronotus* (Salvin) is most nearly related to *A. c. richmondi*, from which it differs chiefly by lesser dimensions and markedly shorter bill. In British Honduras, it intergrades with the more southerly race, according to Austin.

*Additional specimens examined.*—Guatemala: Teleman, 2.—Mexico: Chable, Yucatan, 1.

*Oreospiza* (not of Keitel, 1857) Ridgway, Man. N. Amer. Bds., 2nd ed., p. 439, 1896—type, by monotypy, *Fringilla chlorura* Audubon.

*Oberholseria* Richmond, Proc. Biol. Soc. Wash., 28, p. 180, Nov. 29, 1915—new name for *Oreospiza* Ridgway, preoccupied.

**\**Oberholseria chlorura* (Audubon). GREEN-TAILED TOWHEE.**

*Fringilla chlorura* Audubon, Orn. Biog., 5, p. 336, 1839—Ross' Creek=about twenty miles southwest of Blackfoot, Idaho (descr. of young; type in U. S. National Museum).

*Fringilla blandiingiana* Gambel, Proc. Acad. Nat. Sci. Phila., 1, p. 260, April, 1843—"Rocky Mountains, about halfway between New Mexico and the Colorado of the west" (descr. of adult; type lost, cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 20, 1899).

*Pipilo rufo-pileus* Lafresnaye, Rev. Zool., 11, p. 176, 1848—Mexico (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 388, 1930).

*Atlapetes chlorurus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 738, 1888 (monog.).

*Embernagra chlorura* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 415, 1886—North America south to Mexico (Mazatlan and Guanajuato).

*Oreospiza chlorura* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 400, 1901—(monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 364, 1905—Escuinapa, Sinaloa; idem, l.c., 22, p. 172, 1906—Rio Sestin, Durango.

*Oberholseria chlorura* Grinnell, Univ. Calif. Pub. Zool., 32, p. 184, 1928—Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 296, 1931—Sonora (Pesqueira, Tecoripa, Saric, Obregón, Tésia, Chinobampo, Guaymas); idem, Bull. Mus. Comp. Zool., 77, p. 482, 1923—Sonora and Chihuahua.

*Range*.—Breeds in the western United States from Oregon and southern Montana to southern California, southeastern New Mexico, and western Texas; winters from California and Texas south to Cape San Lucas, Lower California, and Guanajuato, Mexico.<sup>1</sup>

59: California (Willow Creek Valley, Lassen County, 1; Chaparral, Butte County, 1; Nicasio, 1; Big Bear Valley, 5; San Bernardino County, 1); Nevada (Carson, 1); Colorado (Williams Range, Routt County, 1; Hot Sulphur Springs, 4; Fort Lyon, 3; Mount Vernon Canyon, 1; Mill City, 1; unspecified, 1); Arizona (Phoenix, 1; Tucson, 3; Davidson's Canyon, 30 miles south of Tucson, 1; Whitstone Mountains, 1; Calabasas, 5; Fort Huachuca, 1); New Mexico (Deming, 25); Mexico (Nuevo Laredo, Tamaulipas, 1).

<sup>1</sup>Since the above was written, Oberholser (Sci. Publ. Cleveland Mus. N. H., 4, p. 10, Sept. 19, 1932) has described *O. chlorura zapolia* (type, from Hart Mountain, northern end of Warner Valley, Oregon, in Cleveland Museum of Natural History). It is characterized as being more grayish (in winter less rufescent) above and more grayish, less buffy, below, with the flanks paler. Its breeding range is given as central Oregon to southwestern Nevada and southeastern California, and east to northeastern Nevada; it is said to winter from southwestern California and southern Arizona to Lower California, southern Sonora, and casually to Texas.

Genus **PIPILO** Vieillot

*Pipilo* Vieillot, Analyse Nouv. Orn. Elém., p. 32, April, 1816—type, by monotypy, "Pinson aux yeux rouges" Buffon=*Fringilla erythrophthalma* Linnaeus.

*Pipilo* Swainson, Nat. Hist. Class. Bds., 2, p. 286, July 1, 1837—emendation.

*Oriturus* Bonaparte,<sup>1</sup> Consp. Gen. Av., 1, (2), p. 469, 1850—type, by subs. desig. (Hartlaub, Journ. Orn., 3, p. 361, 1855), *Oriturus wrangelii* ("Brandt") Hartlaub=(?)*Pipilo fuscus crissalis* (Vigors).

*Chamaespiza* Scater, Proc. Zool. Soc. Lond., 26, p. 304, Nov. 9, 1858—type, by monotypy, *Pipilo torquatus* Du Bus.

**Pipilo torquatus<sup>2</sup> torquatus** Du Bus. COLLARED TOWHEE.

*Pipilo torquatus* Du Bus, Bull. Acad. Sci. Lettr., Beaux-Arts Belg., 14, (2), p. 105, 1847—Mexico (type in Brussels Museum); idem, Rev. Zool., 11, p. 246, 1848 (reprint);<sup>3</sup> Bonaparte, Consp. Gen. Av., 1, (2), p. 487, 1850—Mexico.

*Chamaespiza torquata* Scater, Proc. Zool. Soc. Lond., 26, p. 304, 1858—La Parada, Oaxaca; idem, l.c., 27, p. 365, 1859—Jalapa, Vera Cruz; idem, Cat. Coll. Amer. Bds., p. 120, 1862—Oaxaca; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 552, 1869—mountains of Orizaba, Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 399, 1886—La Parada, Oaxaca, Jalapa, etc.; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 148, 1886—Zoqueitlan (Tehuacan), Puebla; Sharpe, Cat. Bds. Brit. Mus., 12, p. 730, 1888—La Parada, Oaxaca; Cox, Auk, 12, p. 357, 1895—Mount Orizaba; Chapman, Bull. Amer. Mus. N. H., 10, p. 41, 1898—Las Vegas, Vera Cruz.

*Buarremon ocai* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 126, May, 1865—Jalapa, Mexico (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Salvin, Ibis, 1874, p. 315 (crit.).

<sup>1</sup> *Oriturus* Bonaparte (Consp. Gen. Av., 1, [2], p. 469, 1850), diagnosed as "Rostrum Montifringillae, cauda elongata, gradata," was originally created for "*O. mexicanus*" ex Mexico ("unicolor, uniformis") and "*O. wrangelii* Brandt (*Oriturus sibiricus* Bp. in litt.)" ex "As. s. maxime or." ("variegatus"), both, as they stand here, being practically nomina nuda. Five years later, Hartlaub (Jour. Orn., 3, p. 361, 1855) gave a full description of "*Oriturus wrangelii* Brandt," thus applying the generic name unequivocally to the second of Bonaparte's species, which virtually becomes the genotype. The fact that Bonaparte subsequently (Compt. Rend. Acad. Sci. Paris, 43, p. 413, 1856) designated as type *O. mexicanus*, which, in correcting the so-called diagnosis, he now declares to be the same as *Aimophila* [= *Plagiospiza*] *superciliosa*, cannot have any bearing on the case.

<sup>2</sup> *Pipilo torquatus* is rather difficult to place, combining, as it does, certain characters of *Allapetes* and others of *Pipilo*, from both of which it differs by its heavy feet and unusually long, stout hind claw. The olivaceous tail without white terminal spots and the style of coloration strongly suggest *A. brunnei-nucha*, but proportion and shape of the tail are more like *Pipilo*, while the bill, in form and length, is almost intermediate between the two. In other respects, however, the bird is obviously related to *P. macronyx* and *P. maculatus*, and I do not see my way clear to put it in another genus.

<sup>3</sup> The sometimes quoted plate (36) of Du Bus's Esq. Orn. does not seem to have ever been published.

*Pipilo torquatus torquatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 406, 1901 (monog.); Griscom, Bull. Mus. Comp. Zool., 75, p. 421, 1934—Chilpancingo, Guerrero.

**Range.**—Temperate zone of southern Mexico, in states of Vera Cruz (Jalapa, Orizaba, Las Vegas, Cofre de Perote), Puebla (Zoquitlan, Mount Orizaba), Oaxaca (La Parada, Cerro San Felipe, Mount Zempoaltepec, near Ozolotepec), and Guerrero (near Chilpancingo).<sup>1</sup>

***Pipilo torquatus alticola* (Salvin and Godman).<sup>2</sup> JALISCAN  
COLLARED TOWHEE.**

*Chamaeospiza alticola* Salvin and Godman, Ibis, (6), 1, p. 381, July, 1889—Sierra Nevada de Colima, Mexico (type in Salvin-Godman Collection, now in British Museum).

*Pipilo torquatus alticola* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 408, 1901—Colima and Jalisco (monog.).

**Range.**—Temperate zone of southwestern Mexico, in states of Colima (Sierra Nevada) and Jalisco (Sierra Madre, La Laguna, etc.).

***Pipilo macronyx macronyx* Swainson.<sup>3</sup> SWAINSON'S TOWHEE.**

*Pipilo macronyx* Swainson, Philos. Mag., (n.s.), 1, No. 6, p. 409, June, 1827—part, (?) Real del Monte, Hidalgo, Mexico (type in coll. of W. Bullock, now in University Museum, Cambridge, Eng.; cf. Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 407, 1886, and Sharpe, Cat. Bds. Brit. Mus., 12, p. 751, 1888); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869,

<sup>1</sup> Two races, *P. t. brunescens*, from Oaxaca (type from Totontepec), and *P. t. guerrerensis*, from the Sierra Madre, Guerrero, have recently been discriminated by van Rossem (Bull. Brit. Orn. Cl., 58, p. 131, July 13, 1938).

<sup>2</sup> *Pipilo torquatus alticola* (Salvin and Godman) is rather an unsatisfactory race, nearly all of its characters being bridged by individual variation in a series of typical *torquatus* from Cofre de Perote.

<sup>3</sup> *Pipilo m. macronyx* and *P. m. virescens* require further investigation, and their ranges, as given in literature, seem to overlap, which is hardly likely to be the case, considering their close affinity. Swainson, when describing the species, obviously had two specimens (from Real del Monte, Hidalgo, and Temascaltepec, Mexico, respectively) before him. Unfortunately they appear to represent the two races as generally recognized. His original diagnosis, "Olive; head and throat black, body white, sides and vent ferruginous; wings and lateral tail-feathers (in one sex) with yellow spots," would seem to point to *virescens*. In his later account (in Anim. Menag., p. 347), Swainson, however, clearly describes the form with yellow spots on the upper parts and conspicuous yellow tips to the lateral rectrices, viz., the one which authors are accustomed to call *macronyx*, whereas the specimen with unspotted back, wings, and tail is incidentally mentioned as the probable "female." Salvin and Godman discuss both of Swainson's specimens, while Sharpe describes the spotted bird as the "type" of *P. macronyx* in the Cambridge Museum. On the other hand, *P. virescens* Hartlaub as well as *P. chlorosoma* Baird unquestionably belong to the plain-backed form. Until the significance of the variation has been ascertained by adequate material, nomenclature may provisionally remain undisturbed. A splendid series of nearly forty specimens from the Valley of Mexico (Chimalpa, Tlalpam, etc.) in the British Museum shows conclusively that the differences said to exist between *macronyx* and *virescens* are not racial, but either individual or due to age.

p. 361—Valley of Mexico; Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 2, p. 105 (footnote), 1874—City of Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 406, 1886—part, Real del Monte, Mexico (crit.); Ridgway, Man. N. Amer. Bds., p. 438, 1887—Valley of Mexico; Sharpe, Cat. Bds. Brit. Mus., 12, p. 751, 1888—near Mexico City (descr. of "type").

*Pipilo macronyx* Swainson, Anim. Menag., p. 347, 1837—part, Mexico.

*Pipilo macronyx macronyx* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 409, 1901—mountains around the Valley of Mexico (monog.).

*Range.*—Mountains bordering the Valley of Mexico, in states of Hidalgo, Mexico, Puebla, and Morelos.

***Pipilo macronyx virescens* Hartlaub.<sup>1</sup> HARTLAUB'S TOWHEE.**

*Pipilo virescens* Hartlaub, Journ. Orn., 11, p. 228, 1863—Mexico (type in Bremen Museum); Sharpe, Cat. Bds. Brit. Mus., 12, p. 752, 1888—southern Mexico.

*Pipilo macronyx* Swainson, Phil. Mag., (n.s.), 1, No. 6, p. 409, June, 1827—part, (?)Temiscaltepec, Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 406, 1886—part, Oaxaca and (?)Temiscaltepec.

*Pipilo chlorosoma* Baird, in Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 2, p. 105 (footnote), 1874—Oaxaca, Mexico (type in U. S. National Museum); Ridgway, Man. N. Amer. Bds., p. 438, 1887—Oaxaca.

*Pipilo macronyx virescens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 410, 1901—southern Mexico (monog.).

*Range.*—Mountains along southern border of Mexican plateau, from the State of Mexico to Oaxaca.<sup>2</sup>

**\**Pipilo maculatus arcticus* (Swainson). ARCTIC TOWHEE.**

*Pyrgita (Pipilo) arcticus* Swainson, in Swainson and Richardson, Faun. Bor.-Amer., 2, "1831," p. 260, pls. 51, 52, Feb., 1832—Carlton House, plains of Saskatchewan (type probably in the Swainson Collection, University Museum, Cambridge, Eng.).

[*Pipilo maculatus*] subsp. *a* *Pipilo arcticus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 748, 1888—Texas, Yellowstone River, and Nebraska.

<sup>1</sup> See footnote 3, page 453.

<sup>2</sup> Two puzzling "species" of this complex have been described from the same region: *Chamaespiza nigrescens* Salvin and Godman (Ibis, [6], 1, p. 381, 1889—Patzcuaro, Michoacan, Mexico; type in Salvin-Godman Collection, now in British Museum, examined) and *Pipilo complexus* Ridgway (Auk, 3, p. 332, 1886; Proc. U. S. Nat. Mus., 9, p. 147, 1886—Teziutlan, Puebla; type in National Museum of Mexico). By the color of the sides and flanks, as well as by having a more or less distinct cinnamon-rufous patch on the occiput they form the transition to *P. t. torquatus*, and as has been intimated by Ridgway (Bull. U. S. Nat. Mus., 50, Part 1, p. 408, 1901), they are probably the result of hybridization between the Collared Towhee and *P. macronyx*. Stone (Proc. Acad. Nat. Sci. Phila., 1890, p. 218) recorded a bird of this group as *Chamaespiza torquata* from the vicinity of Patzcuaro, Michoacan. Eight specimens (from Michoacan, Vera Cruz, and Puebla) form an almost unbroken chain between *macronyx* and *torquatus*, and clearly indicate hybridization.

*Pipilo maculatus arcticus* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 412, 1901 (monog., full bibliog.); van Rossem, Bull. Mus. Comp. Zool., **77**, p. 482, 1934—Chihuahua.

*Range*.—Breeds in western North America from southern Alberta and the Forks of the Saskatchewan south to west-central Montana and northwestern Nebraska; occurs in migration in western Wyoming and northeastern Utah, and winters from eastern Colorado and southern Nebraska to Chihuahua and southern Texas; casual in Illinois and Wisconsin.

12: Colorado (Mount Vernon Canyon, 1; Fort Lyon, 1; unspecified, 1); New Mexico (Deming, 1); Texas (Ingram, 2; Waring, 1; Laredo, 1; Cooke County, 1; Fort Worth, 2; Kerrville, 1).

**\**Pipilo maculatus montanus* Swarth.<sup>1</sup> SPURRED TOWHEE.**

*Pipilo maculatus montanus* Swarth, Condor, **7**, p. 172, Nov. 22, 1905—Miller Canyon, Huachuca Mountains, Arizona (type in coll. of H. S. Swarth); Phillips, Auk, **28**, p. 89, 1911—Galindo, Tamaulipas; Oberholser, Sci. Pub. Clevel. Mus. N. H., **1**, p. 106, 1930—Huachuca Mountains, Arizona; van Rossem, Trans. San Diego Soc. N. H., **6**, p. 296, 1931—fifteen miles southwest of Nogales, Sonora; idem, Bull. Mus. Comp. Zool., **77**, p. 482, 1934—Chihuahua and Sonora (Nacozari).

*Pipilo maculatus megalonyx* (not *P. megalonyx* Baird) Allen, Bull. Amer. Mus. N. H., **5**, p. 39, 1893—Los Pinitos, Sonora; Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 415, 1901—part, southeastern California, Rocky Mountains from Wyoming to New Mexico, western Texas, and northeastern Mexico.

*Range*.—Rocky Mountains from Wyoming south to Sonora (southern limit undetermined), Tamaulipas, and southeastern California, east to Colorado, New Mexico, and central western Texas.<sup>2</sup>

26: Utah (Provo, 1); Colorado (Fort Lyon, 4; Mt. Vernon Canyon, 1); New Mexico (Rincon, 2; Fort Union, 1); Arizona (Carr Canyon, Huachuca Mountains, 2; Huachuca Mountains, 13; Fort Verde, 1); Mexico (30 miles west of Miñaca, Chihuahua, 1).

***Pipilo maculatus griseipygius* van Rossem.<sup>3</sup> GRAY-RUMPED TOWHEE.**

<sup>1</sup> *Pipilo maculatus montanus* Swarth: Similar to *P. m. megalonyx*, but generally lighter colored, and with white markings on tail, wing-coverts, and scapulars more extensive; rump grayish; wing and tail longer. Wing, (average of males) 92, (females) 84½; tail, 106½, (female) 97.

<sup>2</sup> Van Tyne and Sutton (Misc. Pub. Mus. Zool. Univ. Mich., **37**, p. 102, Aug. 24, 1937—type, from southeast of Boot Spring, Chisos Mts., Texas, in Univ. Mich. Mus. Zool.) distinguish the towhee of southwestern Texas (Brewster and Jeff Davis counties) and parts of New Mexico as *P. maculatus gaigei*.

<sup>3</sup> *Pipilo maculatus griseipygius* van Rossem: "Similar in size and proportions to *P. m. montanus*, but backs of males with more of olive and less of black; rump

*Pipilo maculatus griseipygius* van Rossem, Bull. Mus. Comp. Zool., **77**, p. 482, Dec., 1934—Jesus Maria, Chihuahua, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

(?) *Pipilo maculatus megalonyx* (not of Baird) Miller, Bull. Amer. Mus. N. H., **22**, p. 172, 1906—Cienaga de las Vacas, Durango (crit.).

*Range*.—Mountains of southwestern Chihuahua (Jesus Maria, Pinos Altos), south probably to Durango.

**\**Pipilo maculatus curtatus* Grinnell.<sup>1</sup> NEVADA TOWHEE.**

*Pipilo maculatus curtatus* Grinnell, Condor, **7**, p. 309, Aug. 24, 1911—Big Creek Ranch, base of Pine Forest Mountains, Humboldt County, Nevada (type in Museum of Vertebrate Zoology, Berkeley); Swarth, Condor, **15**, p. 173, 1913 (crit.); Grinnell, Univ. Calif. Pub. Zool., **12**, p. 177, 1914—lower Colorado Valley.

*Pipilo maculatus megalonyx* (not *P. megalonyx* Baird) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 415, 1901—part, Nevada and eastern Oregon.

*Range*.—Breeds in central southern British Columbia to eastern Oregon, Nevada, and northeastern California; winters south to the Colorado River Valley, in southeastern California.

12: British Columbia (Okanagan, 11); Washington (Wawawai, 1).

**\**Pipilo maculatus oregonus* Bell. OREGON TOWHEE.**

*Pipilo oregonus* Bell, Ann. Lyc. Nat. Hist. N. Y., **5**, p. 6, 1849—"Oregon Territory"—Fort Vancouver, Washington (type in U. S. National Museum).

*Pipilo maculatus oregonus* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 420, 1901—part, coast of British Columbia to Oregon (monog.); Swarth, Condor, **15**, p. 172, 1913 (crit., range).

*Range*.—Coast district of southern British Columbia, including the southern part of Vancouver Island, south through western Washington to southwestern Oregon.

10: Oregon (Portland, 1; Tillamook, 1; Newport, 2; Linn County, 1; Logan, 3; Eagle Point, 2).

more extensively gray; upper tail coverts gray, concolor with the rump, instead of black. Females parallel males in comparative differences." (Van Rossem.) The limits of range of this form remain to be determined by further researches.

<sup>1</sup> *Pipilo maculatus curtatus* Grinnell: Similar to *P. m. montanus*, but wings shorter, tail much shorter, and coloration slightly darker. From *P. m. megalonyx* it is distinguished by paler colors, much greater extent of white markings, and much shorter hind-toe-and-claw; while from *P. m. arcticus*, which it closely resembles in the male sex, it may be separated by slightly longer tail and hind-toe-and-claw, as well as by the dull slate color instead of brownish ground color of the upper parts. Wing (males), 83½–86½; tail, 95–101; bill, 13–15; hind-toe-and-claw, 18–19.

**\**Pipilo maculatus falcinellus* Swarth.<sup>1</sup> SACRAMENTO TOWHEE.**

*Pipilo maculatus falcinellus* Swarth, Condor, 15, p. 172, Oct. 15, 1913—Marysville Buttes, four miles northwest of Sutter, Sutter County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Pipilo maculatus megalonyx* (not *P. megalonyx* Baird) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 415, 1901—part, California.

*Range*.—Interior of California from Tulare County north to southwestern Oregon (Jackson County).

4: California (Clipper Gap, Placer County, 3; Oroville, Butte County, 1).

**\**Pipilo maculatus falcifer* McGregor.<sup>2</sup> SAN FRANCISCO TOWHEE.**

*Pipilo maculatus falcifer* McGregor, Condor, 2, p. 43, March 16, 1900—Palo Alto, California (type in coll. of R. C. McGregor, now in the American Museum of Natural History, New York; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 305, 1932); Swarth, l.c., 15, p. 171, 1913 (crit., range).

*Pipilo maculatus oregonus* (not *P. oregonus* Bell) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 420, 1901—part, northern California.

*Range*.—Coast region of California from the northern boundary of the state south to Monterey County.

34: California (Nicasio, 12; San Geronimo, 4; Palo Alto, 6; Portola, San Mateo County, 1; San Mateo, 1; San José, 2; Los Gatos, 2; Pacific Grove, 1; Monterey, 5).

**\**Pipilo maculatus megalonyx* Baird. SAN DIEGO TOWHEE.**

*Pipilo megalonyx* Baird, in Baird, Cassin, and Lawrence, Rep. Expl. Surv. R. R. Pacif., 9, p. 515, 1858—Fort Tejon [Kern County], California (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 305, 1932).

*Pipilo maculatus atratus* Ridgway, Auk, 16, p. 254, July, 1899—[west of] Pasadena, Los Angeles County, California (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 305, 1932); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 419, 1901—southern coast district of California (monog.); Swarth, Condor, 7, p. 171, 1905 (crit.); Ridgway, l.c., 8, p. 100, 1906 (crit.).

*Pipilo maculatus megalonyx* Linton, Condor, 10, p. 208, 1908—Santa Cruz Island (crit.); Swarth, Condor, 15, p. 170, 1913—Pacific slope of southern

<sup>1</sup> *Pipilo maculatus falcinellus* Swarth: Most nearly similar to *P. m. megalonyx*, but differs in weaker feet with noticeably shorter, weaker hind claw, somewhat greater extent of white markings, and olivaceous or grayish rump. From *P. m. curtatus* it may be distinguished by slightly longer hind claw, decidedly darker brown sides and crissum, and by having the black areas more intensely and glossy black. Wing (males), 84–88; tail, 96–103; bill, 13–15; hind-toe-and-claw, 18–20.

<sup>2</sup> *Pipilo maculatus falcifer* McGregor: Distinguished from *P. m. megalonyx* by very dark coloration with the white markings more restricted (though much more extensive than in *P. m. oregonus*), and smaller, weaker hind claw.



California (crit., range); Grinnell, Univ. Calif. Pub. Zool., **32**, p. 179, 1928—northwestern Lower California.

*Range*.—Pacific slope of southern California (north to San Luis Obispo County, in the interior to northern Kern County), including Santa Cruz and Santa Rosa Islands, and extreme northwestern Lower California (Tecate).

12: California (Santa Cruz Island, 1; Los Angeles County, 2; Alhambra, 1; Lakeside, 1; Pasadena, 1; San Dimas Canyon, 2; Big Bear Valley, 1; Glenn Ranch, 1; San Clemente Canyon, San Diego, 1; San Diego County, 1).

***Pipilo maculatus clementae* Grinnell. SAN CLEMENTE TOWHEE.**

*Pipilo clementae* Grinnell, Auk, **14**, p. 294, July, 1897—Smuggler's Cove, San Clemente Island, California (type in coll. of J. Grinnell, now in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., **38**, p. 305, 1932); idem, Pub. Pasadena Acad. Sci., **1**, p. 19, 1897 (habits).

*Pipilo maculatus megalonyx* (not *P. megalonyx* Baird) Townsend, Proc. U. S. Nat. Mus., **13**, p. 140, 1890—San Clemente Island; Grinnell, Auk, **15**, p. 235, 1898—Santa Catalina Island.

*Pipilo maculatus clementae* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 418, 1901—part, San Clemente and Santa Catalina islands (monog.); Swarth, Condor, **15**, p. 172, 1913—San Clemente and Santa Catalina (crit.).

*Range*.—San Clemente and Santa Catalina Islands, California.

***Pipilo maculatus umbraticola* Grinnell and Swarth.<sup>1</sup> CAPE COLNETT TOWHEE.**

*Pipilo maculatus umbraticola* Grinnell and Swarth, Condor, **28**, p. 130, May 15, 1926—Colnett, lat. 31°, Lower California, Mexico (type in Museum of Vertebrate Zoology, Berkeley); Grinnell, Univ. Calif. Pub. Zool., **32**, p. 179, 1928—Lower California.

*Pipilo maculatus umbraticolus* Huey, Auk, **43**, p. 358, 1926—Sierra Juárez and Sierra San Pedro Mártir.

*Range*.—Northwestern Lower California, north of latitude 30°.

**\**Pipilo maculatus magnirostris* Brewster. LARGE-BILLED TOWHEE.**

*Pipilo maculatus magnirostris* Brewster, Auk, **8**, p. 146, April, 1891—Sierra de la Laguna, Lower California (cotypes in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 388, 1930); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 414, 1901 (monog., bibliog.); Brewster, Bull. Mus. Comp. Zool.,

<sup>1</sup> *Pipilo maculatus umbraticola* Grinnell and Swarth: Very similar to *P. m. megalonyx*, but bill smaller and coloration darker, especially the females being dorsally decidedly slaty instead of tinged with brownish.

41, p. 150, 1902—part, Cape district of Lower California; Grinnell, Univ. Calif. Pub. Zool., 32, p. 181, 1928—Cape district.

*Range*.—Mountains of the Cape district of Lower California.  
5: Lower California (Sierra Laguna, 1; El Sauz, 4).

**\**Pipilo maculatus consobrinus* Ridgway.<sup>1</sup> GUADALUPE TOWHEE.**

*Pipilo maculatus consobrinus* Ridgway, Bull. U. S. Geol. & Geog. Surv. Terr., 2, No. 2, p. 189, April, 1876—Guadalupe Island, off Lower California (type in U. S. National Museum).

*Pipilo consobrinus* Ridgway, Bull. Nutt. Orn. Cl., 2, p. 60, 1877—Guadalupe; Bryant, Bull. Calif. Acad. Sci., 2, No. 6, p. 303, 1887—Guadalupe (habits, song, descr. of young); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 422, 1901—Guadalupe (monog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 181, 1928—Guadalupe.

*Range*.—Guadalupe Island, off Lower California (probably extinct).

1: Lower California (Guadalupe Island, 1).

***Pipilo maculatus carmani* Lawrence.<sup>1</sup> SOCORRO TOWHEE.**

*Pipilo carmani* (Baird MS.) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 7, Feb., 1871—Socorro Island, Revillagigedo group, Mexico (type in U. S. National Museum); Grayson, Proc. Bost. Soc. N. H., 14, p. 299, 1871—Socorro (habits); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 422, 1886—Socorro; Townsend, Proc. U. S. Nat. Mus., 13, p. 135, 1890—Socorro; McGregor, Auk, 15, p. 264, 1898—Socorro (descr. of young); Anthony, Auk, 15, p. 317, 1898—Socorro; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 422, 1901—Socorro (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 309, 1926—Socorro Island.

*Pipilo erythrophthalmus* var. *carmani* Lawrence, Mem. Bost. Soc. N. H., 2, p. 277, 1874—Socorro.

*Range*.—Socorro Island, Revillagigedo group, off western Mexico.

***Pipilo maculatus maculatus* Swainson. MEXICAN SPOTTED TOWHEE.**

*Pipilo maculata* Swainson, Philos. Mag., (n.s.), 1, No. 6, p. 434, June, 1827—Real del Monte [Hidalgo], Mexico (types in coll. of W. Bullock, present location unknown);<sup>2</sup> Jardine and Selby, Illust. Orn., Part 2, pls. 30, 31, June, 1827—Real del Monte, Mexico (descr. and fig. of types).

*Pipilo maculatus* Sclater, Proc. Zool. Soc. Lond., 24, p. 304, 1856—Maltrata, Vera Cruz; idem, l.c., 26, pp. 304, 380, 1858—La Parada and Cinco Señores,

<sup>1</sup> I cannot see in *P. m. consobrinus* and *P. m. carmani* anything but strongly marked insular races, their characters being only degree of such.

<sup>2</sup> The type does not seem to have passed into the Swainson Collection, now in the University Museum at Cambridge, Eng. (cf. Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 408, 1886).

Oaxaca; Sclater and Salvin, l.c., 1869, p. 361—Valley of Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 552, 1869—high mountains of Vera Cruz; Lawrence, Bull. U. S. Nat. Mus., 4, p. 22, 1876—Cieneguilla, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 408, 1886—part, Mexican localities; Sharpe, Cat. Bds. Brit. Mus., 12, p. 747, 1888—part, spec. a-d, Mexico (Real del Monte, Oaxaca); Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 215—Chalchicomula, Puebla (crit.); Nelson, Auk, 15, p. 157, 1898—Mount Orizaba (crit.).

*Pipilo oregonus* (not of Bell) Dugès, La Naturelle, 1, p. 140, 1868—Guajuato, Mexico.

*Pipilo submaculatus* Ridgway, Auk, 3, p. 332, July, 1886—Tezuitlan, Puebla, Mexico (type in National Museum of Mexico); idem, Proc. U. S. Nat. Mus., 9, p. 146, 1886—Tezuitlan.

*Pipilo orizabae* Cox, Auk, 11, p. 161, April, 1894—Mount Orizaba, Mexico (type in U. S. National Museum); idem, l.c., 12, p. 357, 1895—Mount Orizaba; Nelson, l.c., 15, p. 157, 1898 (crit.;=female).

*Pipilo maculatus maculatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 410, 1901—part, Mexico (monog., full bibliog.).

*Range*.—Tableland of Mexico, from San Luis Potosí (Jesus Maria, Alvarez), Zacatecas (Plateado, Sierra Valparaíso), and Nayarit south to Oaxaca and Chiapas.<sup>1</sup>

**\**Pipilo maculatus repetens* Griscom.<sup>2</sup> GUATEMALAN SPOTTED TOWHEE.**

*Pipilo maculatus repetens* Griscom, Amer. Mus. Novit., 438, p. 12, Dec. 15, 1930—Zanzón, western Guatemala (type in coll. of J. Dwight, now in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 64, p. 366, 1932—Guatemala (Barrillos, Nebaj, Momostenango, Chichicastenango, Zanzón, San Mateo, Tecpam, Panajachel, Volcan San Lucas, Quezaltenango).

*Pipilo oregonus* (not of Bell) Salvin, Ibis, 1866, p. 193—Quezaltenango, Sololá, and Chimaltenango, Guatemala.

*Pipilo maculatus* (not of Swainson) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 408, 1886—part, Guatemala; Sharpe, Cat. Bds. Brit. Mus., 12, p. 747, 1888—part, spec. d, Quezaltenango, Guatemala.

*Pipilo maculatus maculatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 410, 1901—part, Guatemala.

<sup>1</sup> Breeding specimens from San Luis Potosí and Zacatecas seem to be intermediate to *P. m. montanus*, to which birds from Tamaulipas have generally been referred. Study of adequate series is imperative to define the ranges of the two races in northeastern Mexico. One more race, *P. m. chiapensis* van Rossem (Bull. Brit. Orn. Cl., 58, p. 130, July 13, 1938), has lately been described.

<sup>2</sup> *Pipilo maculatus repetens* Griscom: Similar to *P. m. maculatus*, but on average larger; upper parts darker, much more blackish in the male sex; the white dorsal streaking more conspicuous. This form approaches *P. m. montanus* in the coloration of the dorsal surface, but is not so dark above, with a lesser amount of white markings on back and wings. Wing (males), 86–92.

*Hortulanus maculatus* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 117, 1907—Lake Atitlan and Sierra Santa Elena, Guatemala.

*Range*.—Highlands of Guatemala.

10: Guatemala (near Tecpam, 5; Volcan Tajumulco, 2; Santa Elena, Chimaltenango, 1; Lake Atitlan, 2).

**\**Pipilo erythrophthalmus*<sup>1</sup> *erythrophthalmus* (Linnaeus). RED-EYED TOWHEE.**

*Fringilla erythrophthalma* Linnaeus, Syst. Nat., 10th ed., 1, p. 180, 1758—based on "The Towhe-Bird" Catesby, Nat. Hist. Carolina, 1, p. 34, pl. 34; South Carolina.

*Pipilo ater* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 292, 1819—new name for *Fringilla erythrophthalma* Linnaeus.

*Pipilo erythrophthalmus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 744, 1888 (monog.).

*Pipilo erythrophthalmus erythrophthalmus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 423, 1901 (monog., full bibliog. excl. of breeding records from the Gulf coast).

*Range*.—Breeds in eastern North America, east of the Great Plains, from southeastern Saskatchewan and southern Manitoba, Ontario, and Maine south to Kansas and northern Georgia; winters from Nebraska, Wisconsin, and the Ohio and Potomac valleys to Texas, the Gulf coast, and Florida.

100: Massachusetts (Natick, 2; Brookline, 1; Taunton, 1; unspecified, 2); Connecticut (East Hartford, 6); Rhode Island (Fruit Hill, 1); New York (Shelter Island, 9; Suffolk County, 1); Wisconsin (Beaver Dam, 11); Illinois (Lake Forest, 1; Chicago, 2; Addison, 1; Wolf Lake, 2; Hegewisch, 3; Joliet, 10; Brainerd, 2; Henry, 3; Grand Chain, 6); Indiana (Liverpool, 2; Bluffton, 3); North Dakota (Cannonball River, 1); Iowa (Cedar Rapids, 1); Missouri (unspecified, 1); Texas (Fort Worth, 1); Louisiana (Chef Menteur, 4); Mississippi (Vicksburg, 2); Florida (Mary Esther, 3; Town Point, Santa Rosa County, 12; Santa Rosa Island, 3; East Pass, 2; Gainesville, 1).

***Pipilo erythrophthalmus canaster* Howell.<sup>2</sup> ALABAMA TOWHEE.**

*Pipilo erythrophthalmus canaster* Howell, Proc. Biol. Soc. Wash., 26, p. 202, Oct. 23, 1913—Spring Hill, near Mobile, Alabama (type in U. S. National

<sup>1</sup> I follow general custom in keeping the Red-eyed Towhee as specifically distinct from *P. maculatus*, though I feel almost certain that their proper relationship would be more correctly expressed by uniting them in one complex. The ranges of *P. e. erythrophthalmus* and *P. m. arcticus*, as given in the A. O. U. Check List, do not seem to oppose such a treatment.

<sup>2</sup> *Pipilo erythrophthalmus canaster* Howell: Similar to the nominate race, but with larger bill and slightly longer tail; white markings on tail less extensive; sides and flanks on average paler; females with head, neck, chest, and upper parts

Museum); Golsan and Holt, Auk, 31, p. 228, 1914—Alabama (breeding); Howell, Bds. Alabama, p. 249, 1924—Alabama (range, habits).

*Pipilo erythrophthalmus erythrophthalmus* (not *Fringilla erythrophthalma* Linnaeus) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 423, 1901—part, breeding records from Georgia and Alabama.

*Range*.—Southern United States from central Georgia west to Alabama (resident).

**\**Pipilo erythrophthalmus alleni* Coues. WHITE-EYED TOWHEE.**

*Pipilo alleni* Coues, Amer. Nat., 5, No. 6, p. 366 (note), August, 1871—based on *P. erythrophthalmus* Allen, Bull. Mus. Comp. Zool., 2, p. 282, 1871, "Florida" (cotypes from Dummitt's Grove, Indian River, Florida, in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 388, 1930).

*Pipilo leucopis* Maynard, Bds. Florida, Part 5, p. 113, pl. 4, July, 1878—Dummitt's Grove, Florida (no type indicated).

[*Pipilo erythrophthalmus*] subsp. *a* *Pipilo alleni* Sharpe, Cat. Bds. Brit. Mus., 12, p. 746, 1888—Florida.

*Pipilo erythrophthalmus alleni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 426, 1901 (monog., full bibliog.).

*Range*.—Coast region of the United States from about Charleston, South Carolina, southward to Florida.

74: South Carolina (Weston, 1); Florida (Amelia Island, 1; Nassau County, 3; Town Point, Santa Rosa County, 8; Santa Rosa Island, 21; East Pass, 7; Grove City, 1; Enterprise, 1; Indian River, 3; Wilson, 6; Banana River, 2; West Jupiter, 5; Lake Worth, 3; Lantana, 3; Pine Island, 1; Puntarasa, 4; Miami Beach, 1; Southwest Harbor, 1; unspecified, 2).

**\**Pipilo fuscus bullatus* Grinnell and Swarth.<sup>1</sup> OREGON BROWN TOWHEE.**

*Pipilo fuscus bullatus* Grinnell and Swarth, Univ. Calif. Pub. Zool., 21, p. 431, April 6, 1926—Eagle Point, Jackson County, Oregon (type in Museum of Vertebrate Zoology, Berkeley).

*Pipilo crissalis carolae* (not of McGregor) Grinnell, Condor, 14, p. 199, 1912—part, Kerby, Oregon; Swarth, Condor, 20, p. 119, 1918—part, Oregon.

more grayish (dark olive brown instead of Prout's brown); iris red. Wing, 85–93, (female) 86; tail, 90–101, (female) 96; bill, 14–16.

From *P. e. alleni* the Alabama Towhee is easily separated by its large size and red iris.

<sup>1</sup> *Pipilo fuscus bullatus* Grinnell and Swarth: Nearest to *P. f. carolae*, but on average larger with long, heavy bill; coloration tending to a slate gray; sides and flanks more heavily and extensively saturated with brownish slate. Wing (males), 94–99; tail, 108–110½; bill, 14–16.

*Range*.—Valleys of Josephine and Jackson counties, southwestern Oregon, and extreme northern California (Klamath River and south base of Table Rock, Siskiyou County).

2: Oregon (Eagle Point, 2).

**\**Pipilo fuscus carolae* McGregor.<sup>1</sup> SACRAMENTO BROWN TOWHEE.**

*Pipilo fuscus carolae* McGregor, Bull. Cooper Orn. Cl., 1, No. 1, p. 11, Jan., 1899—Battle Creek [boundary line between Shasta and Tehama counties], California (type in coll. of R. C. McGregor, now in the American Museum of Natural History, New York; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 306, 1932); Grinnell, Condor, 14, p. 199, 1912 (crit., excl. of Kerby, Oregon).

*Pipilo crissalis carolae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 435, 1901—northern Sacramento Valley, California; Swarth, Condor, 20, p. 119, 1918—part, California (crit.).

*Pipilo crissalis crissalis* (not *Fringilla crissalis* Vigors) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 434, 1901—California west of the Sierra Nevada.

*Range*.—Interior valleys and foothills west of the Sierra Nevada, California, from Kern County<sup>2</sup> north to Shasta County.

3: California (Clipper Gap, Placer County, 2; Mariposa, 1).

**\**Pipilo fuscus petulans* Grinnell and Swarth.<sup>3</sup> SAN FRANCISCO BROWN TOWHEE.**

*Pipilo fuscus petulans* Grinnell and Swarth, Univ. Calif. Pub. Zool., 21, p. 430, April 6, 1926—Palo Alto, Santa Clara County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Pipilo crissalis crissalis* (not *Fringilla crissalis* Vigors) Swarth, Condor, 20, p. 119, 1918—part, northwestern California (from Santa Cruz to Humboldt County).

*Range*.—Northwestern coast region of California from Humboldt Bay to the vicinity of Santa Cruz.

18: California (Nicasio, 5; San Geronimo, 2; Menlo Park, 2; Saint Helena, 2; Palo Alto, 3; San José, 1; Los Gatos, 2; unspecified, 1).

<sup>1</sup> *Pipilo fuscus carolae* McGregor: Distinguished from *P. f. crissalis* by slightly larger size, and paler, more slaty and less brownish coloration; from *P. f. senicula* by decidedly larger size and deeper, slaty brown tones of coloration (Grinnell, l.c.). Wing (males), 95–100; tail, 103–117.

<sup>2</sup> Birds from Kern County have lately been separated as *P. f. kernensis* Grinnell and Behle (Condor, 39, p. 177, July, 1937—type from two miles north of Sorrell Ranch, Kelso Valley, Kern County, in Museum of Vertebrate Zoology, Berkeley).

<sup>3</sup> *Pipilo fuscus petulans* Grinnell and Swarth: Intermediate in size between *P. f. carolae* and *P. f. crissalis*, but separable by the decidedly reddish tone of the plumage. Wing (males), 91½–100½; tail, 98½–110; bill, 15–16.

**\**Pipilo fuscus crissalis* (Vigors).<sup>1</sup> CALIFORNIA TOWHEE.**

*Fringilla crissalis* Vigors, in Zool. Beechey's Voyage Blossom, p. 19, 1839—no locality stated (type, from Monterey, California, now in the British Museum ex coll. Zool. Soc. of London; cf. Sharpe, Cat. Bds. Brit. Mus., 12, p. 754, 1888, and Grinnell, Univ. Calif. Pub. Zool., 38, p. 306, 1932).

*Pipilo crissalis crissalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 434, 1901—part, southern California; Swarth, Condor, 20, p. 119, 1918—part, from Monterey County south to San Luis Obispo County, California.

*Pipilo fuscus crissalis* Grinnell and Swarth, Univ. Calif. Pub. Zool., 21, p. 430, 1926 (crit.); Grinnell, l.c., 32, p. 181, 1928—Tecate, extreme northern Lower California.

*Pipilo crissalis senicula* (not of Anthony) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 436, 1901—part, southern California; Swarth, Condor, 20, p. 120, 1918—part, southern California (crit.).

**Range.**—Coast district of California from Monterey south to the Mexican boundary and east to the western margins of the San Joaquin Valley.

13: California (Pasadena, 1; Alhambra, 1; Arcadia, Los Angeles County, 1; Los Angeles County, 2; Colton, 1; Claremont, 3; San Diego, 4).

***Pipilo fuscus eremophilus* van Rossem.<sup>2</sup> ARGUS MOUNTAINS TOWHEE.**

*Pipilo fuscus eremophilus* van Rossem, Trans. San Diego Soc. N. H., 8, p. 70, Aug. 24, 1935—Lang Spring, Mountain Springs Canyon, Argus Mountains, Inyo County, California (type in coll. of San Diego Society of Natural History).

*Pipilo fuscus crissalis* (not *Fringilla crissalis* Vigors) Fisher, N. Amer. Faun., 7, p. 105, 1893—part, Cajon Pass, California.

*Pipilo crissalis crissalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 434, 1901—part, San Bernardino County.

**Range.**—Argus Mountains and adjacent ranges in southeastern California.

<sup>1</sup> "*Oriturus wrangeli* Brandt (*Oriturus sibiricus* Bp. in litt.)" Bonaparte (Consp. Gen. Av., 1, p. 470, 1850—"ex As. s. maxime or."), the whole diagnosis of which reads "variegatus," has been quoted as a synonym of *P. f. crissalis*. In a subsequent communication (Compt. Rend. Acad. Sci. Paris, 43, No. 8, p. 413, 1856), Bonaparte not only corrects the locality to Russian America, but also the diagnosis to "unicolor (uniformis)."

In the meantime, however, Hartlaub (Jour. Orn., 3, p. 361, 1855) had published a full description of the very same specimen in the Leyden Museum under the name *Oriturus wrangeli* (Brandt MS.). According to Dr. C. G. W. Junge (in litt.), the type differs from examples of *P. f. crissalis* by more brownish upper parts (wing, 90), and it is quite possible that *wrangeli* may prove to be an earlier name for *P. f. petulans*. The locality is obviously erroneous.

<sup>2</sup> *Pipilo fuscus eremophilus* van Rossem: "Most closely similar to *P. f. carolae*, but bill smaller, tarsi and toes decidedly shorter, and coloration slightly darker and grayer. Resembles *P. f. fuscus*, but wings and tail longer, bill much more slender, both in lateral and vertical profiles, and coloration paler. Wing (male), 94-95; tail, 103-108; bill, 14.5-14.7." (Van Rossem, l.c.)

**Pipilo fuscus senicula** Anthony. ANTHONY'S TOWHEE.

*Pipilo fuscus senicula* Anthony, Auk, 12, p. 111, April, 1895—San Fernando, Lower California (type in coll. of A. W. Anthony, now in Carnegie Museum; cf. Todd, Ann. Carnegie Mus., 18, p. 363, 1928).

*Pipilo crissalis senicula* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 436, 1901—part, Lower California; Swarth, Condor, 20, p. 120, 1918—part, Lower California; Grinnell and Swarth, Univ. Calif. Pub. Zool., 21, p. 427, 1926 (crit.); Grinnell, l.c., 32, p. 181, 1928—Lower California (range).

*Range*.—Pacific side of Lower California south at least to latitude 29°.

**Pipilo fuscus aripolius** Oberholser.<sup>1</sup> SAN PABLO TOWHEE.

*Pipilo fuscus aripolius* Oberholser, Condor, 21, p. 210, Sept. 30, 1919—San Pablo, Lower California (type in U. S. National Museum); Grinnell, Univ. Calif. Pub. Zool., 32, p. 182, 1928—Lower California (crit.).

*Range*.—Middle portion of Lower California.

**\*Pipilo fuscus albigula** Baird. SAN LUCAS TOWHEE.

*Pipilo albigula* Baird, Proc. Acad. Nat. Sci. Phila., 11, Oct.–Nov., 1859, p. 305, pub. Jan. 12, 1860—Cape San Lucas, Lower California (type in U. S. National Museum); Sharpe, Cat. Bds. Brit. Mus., 12, p. 755, 1888—Cape San Lucas; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 433, 1901—Cape region (monog., full bibliog.).

*Pipilo fuscus albigula* Brewster, Bull. Mus. Comp. Zool., 41, p. 151, 1902—Cape district (crit., descr. of young, habits, nest, and eggs); Grinnell, Univ. Calif. Pub. Zool., 32, p. 182, 1928—Cape district.

*Range*.—Cape region of Lower California.

7: Lower California (El Valle, 1; La Paz, 2; Todos Santos, 1; Cape San Lucas, 1; unspecified, 2).

**\*Pipilo fuscus mesoleucus** Baird. CAÑON TOWHEE.

*Pipilo mesoleucus* Baird, Proc. Acad. Nat. Sci. Phila., 7, May–June, p. 119, pub. July 3, 1854—Bill Williams Fork [=Big Sandy, just south of lat. 35° north], Arizona (type in U. S. National Museum; cf. Baird, Rep. Expl. Surv. Pacif. R. R., 9, p. 519, 1858).

[*Pipilo fuscus*] subsp.  $\beta$  *Pipilo mesoleucus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 754, 1888 (monog.).

*Pipilo fuscus mesoleucus* Allen, Bull. Amer. Mus. N. H., 5, p. 39, 1893—Sonora (Granados, Nacory) and Chihuahua (San Diego, Neuvencha Plain); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 432, 1901 (monog., full bibliog.); Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 329, 1929—southern Arizona; Oberholser, Sci. Pub. Clevel. Mus. N. H., 1, p. 106, 1930—

<sup>1</sup> *Pipilo fuscus aripolius* Oberholser: Similar to *P. f. albigula*, but with longer tail; upper parts much darker and more grayish; breast, sides, and flanks darker and less brownish (more purely grayish); crissum slightly and throat decidedly darker, and the latter not much paler than the posterior lower parts (Oberholser, l.c.).



Huachuca Mountains, Arizona; van Rossem, Trans. San Diego Soc. N. H., 6, p. 297, 1931—Sonora (Saric, El Alamo, southwest of Nogales, Altar, Caborea); idem, Bull. Mus. Comp. Zool., 77, p. 483, 1934—Nacozari, Sonora.

*Range*.—Southwestern United States, from west-central Arizona and southeastern Colorado<sup>1</sup> south to western Texas, and the adjacent section of northern Sonora and Chihuahua, Mexico.

56: Colorado (Fort Lyon, 4); Arizona (Fort Grant, 1; Tucson, 7; Huachuca Mountains, 13; Calabasas, 11; Fairbank, 1; Tombstone, 1; Paradise, 1); New Mexico (Santa Fé, 3); Mexico (Cerro Blanco, Sonora, 2; Babicora, Chihuahua, 2; 30 miles west of Miñaca, Chihuahua, 7; Bustillos, Chihuahua, 2; "Chihuahua," 1).

**\**Pipilo fuscus texanus* van Rossem.<sup>2</sup> TEXAN TOWHEE.**

*Pipilo fuscus texanus* van Rossem, Trans. San Diego Soc. N. H., 7, p. 371, May 31, 1934—Kerrville, Kerr County, Texas (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Range*.—Southern Texas, from Kerr County west at least to Valverde County.

2: Texas (Kerrville, 2).

***Pipilo fuscus perpallidus* van Rossem.<sup>3</sup> DESERT TOWHEE.**

*Pipilo fuscus perpallidus* van Rossem, Bull. Mus. Comp. Zool., 77, p. 483, Dec., 1934—Chihuahua, Chihuahua, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Range*.—Arid deserts of central Chihuahua, Mexico.

***Pipilo fuscus jamesi* Townsend.<sup>4</sup> TIBURÓN ISLAND TOWHEE.**

*Pipilo fuscus jamesi* Townsend, Bull. Amer. Mus. N. H., 48, p. 20, pl. 1, March 9, 1923—Tiburón Island, Sonora, Mexico (type in the American

<sup>1</sup> Birds from Colorado have recently been separated by Oberholser (Proc. Biol. Soc. Wash., 50, p. 118, Aug. 7, 1937) as *P. f. mesatus* (type, from Gaume's Ranch, Baca County, in U. S. National Museum).

<sup>2</sup> *Pipilo fuscus texanus* van Rossem: "Most nearly resembling *P. f. mesoleucus*, but darker and grayer; tail equal to, instead of longer than, the wing; not unlike *P. f. potosinus* in size and relative proportions of wing and tail, but coloration paler and lacking the rich brown tones of that race. Wing, (male) 92–95, (female) 88–93; tail, 90–93, (female) 89–95." (Van Rossem, l.c.)

<sup>3</sup> *Pipilo fuscus perpallidus* van Rossem: Nearest to *P. f. mesoleucus*, but paler and grayer, and size slightly smaller, with proportionately, and actually, shorter tail. Wing (males), 90–94; tail, 93–100.

According to the describer, this is the palest and most ashy of the known races of *P. fuscus*, save only *P. f. jamesi*.

<sup>4</sup> *Pipilo fuscus jamesi* Townsend: Nearest to *P. f. intermedius*, but considerably smaller (even smaller than *P. f. albicula*) with stouter bill, and very much paler in coloration, the upper parts and flanks being much more ashy, the crown lighter

Museum of Natural History, New York); van Rossem, Trans. San Diego Soc. N. H., 7, p. 143, 1932—Tiburón Island (crit.).

*Range*.—Tiburón Island, off Sonora, northwestern Mexico.

**Pipilo fuscus intermedius** Nelson. ALAMOS TOWHEE.

*Pipilo fuscus intermedius* Nelson, Proc. Biol. Soc. Wash., 13, p. 27, May 29, 1899—Alamos, Sonora, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 432, 1901—southern Sonora and northern Sinaloa (monog.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 296, 1931—Sonora (Pesqueira, Tecoripa, San Javier, Tésia, Chinobampo, Guiricoba, Agiobampo); idem, Bull. Mus. Comp. Zool., 77, p. 483, 1934—Sonora (Alamos, Oposura) and western Chihuahua (Pinos Altos, Bravo, Carmen, Durazno).

*Range*.—Northwestern Mexico, in State of Sonora (excepting the northern section) and the adjoining districts of western Chihuahua and northern Sinaloa.

**Pipilo fuscus potosinus** Ridgway. PLATEAU BROWN TOWHEE.

*Pipilo fuscus potosinus* Ridgway, Auk, 16, p. 254, July, 1899—Guanajuato, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 431, 1901 (monog., full bibliog.).

*Pipilo fuscus mesoleucus* (not of Baird) Miller, Bull. Amer. Mus. N. H., 22, p. 173, 1906—Rosario, Las Bocas, Matalotes, La Cienaga de las Vacas, Rio Sestin, Rancho Baillon, and Arroyo del Buey, Durango (crit.).

*Range*.—Central portion of Mexican tableland from Hidalgo<sup>1</sup> and Guanajuato north to Nuevo León, Durango, and southeastern Chihuahua.

**\*Pipilo fuscus fuscus** Swainson. BROWN TOWHEE.

*Pipilo fuscus* Swainson, Phil. Mag., (n.s.), 1, No. 6, p. 434, June, 1827—Temascaltepec, Mexico (type in coll. of W. Bullock, now in the Swainson Collection in the University Museum, Cambridge, Eng.; cf. Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 410, 1886).

*Pipilo fuscus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 752, 1888 (monog.).

*Pipilo fuscus fuscus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 430, 1901 (monog., full bibliog.).

*Range*.—Southern and western portion of Mexican tableland from states of Mexico, Puebla, and Vera Cruz west through Michoacan to Jalisco and Nayarit.<sup>2</sup>

7: Mexico (Tuxpan, Jalisco, 7).

rufous, the anal region and under tail coverts lighter tawny. Wing (males), 84–88; tail, 90–96; bill, 15.

<sup>1</sup> Birds from Vera Cruz and Puebla, which have been referred to *potosinus* by Ridgway, are darker brown above with the crown less rufescent, and judging from the few specimens at hand, seem to be nearer to typical *fuscus*. The question requires, however, further investigation with the help of more adequate material.

<sup>2</sup> The ranges of *P. f. fuscus* and *P. f. potosinus*, as given by authors, certainly need readjustment, but without series of breeding birds it is impossible to say

**Pipilo rutilus** (Lichtenstein).<sup>1</sup> SCLATER'S TOWHEE.

*Tanagra rutila* Lichtenstein, Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, 1830—Mexico (type, from Oaxaca, in Berlin Museum; cf. van Rossem, Bull. Mus. Comp. Zool., 77, p. 423, 1934); Cabanis, Journ. Orn., 11, p. 57, 1863 (reprint of orig. descr.).

*Pipilo albicollis* Sclater, Proc. Zool. Soc. Lond., 26, p. 304, Nov. 9, 1858—San Miguel de las Peras, Oaxaca (type in British Museum);<sup>2</sup> idem, l.c., 27, p. 380, 1859—Totontepec and Oaxaca; idem, Cat. Coll. Amer. Bds., p. 120, 1862—Oaxaca; Lawrence, Bull. U. S. Nat. Mus., 4, p. 22, 1876—Huitzo, near Oaxaca.

*Pipilo rutilus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 410, 1886—Oaxaca (San Miguel de las Peras, Totontepec, Huitzo); Sharpe, Cat. Bds. Brit. Mus., 12, p. 428, 1901—southern Mexico, in states of Puebla, Oaxaca, and Guerrero (monog.).

*Range*.—Southern Mexico, in states of Puebla (Tehuacan), Oaxaca (San Miguel de las Peras, Totontepec, Huitzo, Mount Zempoaltepec), and Guerrero (Ayusinapa).

**\*Pipilo aberti** Baird. ABERT'S TOWHEE.

*Pipilo aberti* Baird, in Stansbury, Rep. Exp. Utah, Zool., p. 325, June, 1852—New Mexico (present whereabouts of type unknown); Brewster, Bull. Nutt. Orn. Cl., 7, p. 198, 1882—Colorado, Gila, and San Pedro rivers, Arizona (habits, nest, eggs, and young); Sharpe, Cat. Bds. Brit. Mus., 12, p. 756, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 427, 1901 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 12, p. 177, 1914—lower Colorado Valley; idem, l.c., 32, p. 183, 1928—Colorado delta, Lower California.

*Range*.—Lower Austral zone from southeastern California (Colorado River valley and delta), southern Nevada, and southwestern Utah to northeastern Lower California, northwestern Sonora, southern Arizona, and southwestern New Mexico.

17: Arizona (Phoenix, 12; Tucson, 1; Fairbank, 1; Fort Lowell, 1); California (Fort Yuma, 1; Mecca, 1).

anything definite. Before all, material from the type locality in sufficient quantity should be examined in order to determine what form *P. fuscus* really represents. Matters have been further complicated by the addition of another race, *P. f. tenebrosus* van Rossem (Bull. Brit. Orn. Cl., 38, p. 132, July 13, 1938) from Jalisco (type, from Zapotlan, in British Museum).

<sup>1</sup> *Pipilo rutilus* (Lichtenstein), which is not available at present for study, may be merely a well-marked race of the *P. fuscus* complex. However, its breeding range is too imperfectly known.

<sup>2</sup> Spec. "c, Mexico, A. Sallé (C.)" (Cat. Bds. Brit. Mus.) is probably the actual type of the species which was based upon a single male secured by A. Sallé in May, 1857, at San Miguel de las Peras. The example listed by Sclater (Cat. Coll. Amer. Bds., p. 120) and Sharpe (p. 429) as type, has no claims to this dignity, having been obtained by Boucard subsequent to the description.

Genus **TORREORNIS** Barbour and Peters<sup>1</sup>

*Torreornis* Barbour and Peters, Proc. New Eng. Zool. Cl., 9, p. 96, May 12, 1927—type, by monotypy, *Torreornis inexpectata* Barbour and Peters.

**\*Torreornis inexpectata** Barbour and Peters.<sup>2</sup> ZAPATA FINCH.

*Torreornis inexpectata* Barbour and Peters, Proc. New Engl. Zool. Cl., 9, p. 96, May 12, 1927—Santo Tomás, Peninsula de Zapata, Cuba (type in Museum of Comparative Zoology, Cambridge, Mass.); Barbour, Auk, 45, pp. 30, 31, pl. 3, 1928—Cuba.

*Range*.—Swamps of the Zapata Peninsula, Cuba, Greater Antilles.

3: Cuba (Santo Tomás, 3).

Genus **MELOZONE** Reichenbach

*Melozone* Reichenbach, Av. Syst. Nat., pl. 79, fig. 1, June 1, 1850—type, by subs. desig. (Sharpe, Cat. Bds. Brit. Mus., 12, p. 731, 1888), *Pyrgita biarcuata* Prévost and Des Murs.

*Pyrgisoma* (Pucheran MS.) Bonaparte, Consp. Gen. Av., 1, (2), p. 486, end of 1850—type, by subs. desig. (Sharpe, Cat. Bds. Brit. Mus., 12, p. 731, 1888), *Pyrgita biarcuata* Prévost and Des Murs.

*Kieneria* Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, p. 356, 1855—type, by orig. desig., *Pyrgisoma kieneri* Bonaparte.

*Melozene* Gray, Cat. Gen. Subgen. Bds., p. 75, 1855—emendation of *Melozone* Reichenbach (same type).

*Melanzona* Cabanis, Journ. Orn., 8, p. 412 (footnote), 1860—emendation of *Melozone* Reichenbach.

<sup>1</sup> *Torreornis* Barbour and Peters: Bill moderately stout with convex culmen and indistinct rictal bristles; wing very short, three times as long as tarsus, much rounded; third and fourth primaries longest, only slightly exceeding the second, fifth, and sixth, which are subequal; first (outermost) primary not longer than ninth; tip of longest secondaries reaching to end of eighth primary; tail somewhat longer than wing, slightly graduated, middle pair of rectrices exceeding the outer pair by about one-half the length of the tarsus; tarsus longer than middle toe with claw; lateral toes about equal, their claws reaching beyond the base of the middle claw; hind toe and claw about equal, together not exceeding the claw and middle toe; plumage long and lax.

<sup>2</sup> *Torreornis inexpectata* Barbour and Peters: Crown rufous, with an indistinct grayish median line; rest of upper parts grayish olive, the middle portion with dusky centers; rump and tail coverts brighter; lores whitish; supraorbital stripe and sides of neck gray, auricular region darker; a white malar stripe separated from the white throat by a narrow black maxillary streak; lower border of throat pale gray; breast and abdomen bright lemon-yellow, shading into grayish olive on the chest and olive on the flanks; wings and tail dusky brownish, narrowly margined with olive along the outer webs. Wing, 65–67, (female) 64; tail, 73–75, (female) 70; tarsus, 22–23; bill, 17–17½.

This is a very peculiar bird by reason of its very short, much rounded wings, and its striking coloration, the combination of rufous crown and yellow under parts being unusual in the family.

Two specimens from Santo Tomás, Cuba, examined.

**Melozone kieneri grisior** van Rossem.<sup>1</sup> NORTHERN GROUND SPARROW.

*Melozone rubricatum grisior* van Rossem, Trans. San Diego Soc. N. H., 7, p. 283, March 31, 1933—Hacienda de San Rafael, Sonora (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Melozone kieneri grisior* van Rossem, Bull. Mus. Comp. Zool., 77, p. 484, 1934—Hacienda de San Rafael.

*Melozone rubricatum xantusii* (not *Pyrgisoma xantusii* Lawrence) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 441, 1901—part, San Rafael, "Chihuahua"—Sonora.

*Range*.—Extreme southeastern Sonora (Hacienda de San Rafael), northeastern Sinaloa (Questa del Tigre), and probably contiguous portions of Chihuahua, northwestern Mexico.

**\*Melozone kieneri kieneri** (Bonaparte). KIENER'S GROUND SPARROW.

*Pyrgisoma kieneri* Bonaparte, Consp. Gen. Av., 1, (2), p. 486, end of 1850—"ex Amer. occ."<sup>2</sup> (type in Paris Museum); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, pp. 325, 326—western Mexico (crit. note on type); idem, Exot. Orn., p. 130, pl. 65, fig. 2, 1868 (descr. and fig. of type); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 401, 1886—Mexico (?); Sharpe, Cat. Bds. Brit. Mus., 12, p. 732, 1888—Mexico(?); van Rossem, Bull. Mus. Comp. Zool., 77, p. 423, 1934 (crit. note on type).

*Melozone kieneri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 439, 1901—Mexico.

*Pyrgisoma xanthusii* (Baird MS.) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 480, May, 1867—plains of Colima, western Mexico (type in U. S. National Museum).

*Pyrgisoma rubricatum* (not *Atlappetes rubricatus* Cabanis) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 326—part, plains of Colima; idem, Exot. Orn., p. 127, 1868—part, Colima; Lawrence, Mem. Bost. Soc. N. H., 2, p. 278, 1874—Sinaloa (Mazatlan), Colima, and Tepic (San Blas); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 402, 1886—part, Sinaloa (Mazatlan, Presidio), Tepic (San Blas), and Colima; Sharpe, Cat. Bds. Brit. Mus., 12, p. 731, 1888—part, spec. a-d, Mazatlan and Presidio, Sinaloa; Jouy, Proc. U. S. Nat. Mus., 16, p. 780, 1893—Barranca Ibarra (near Guadalajara), Jalisco.

*Pyrgisoma rubricatum xantusi* Nelson, Auk, 15, p. 156, 1898—Colima, Jalisco, Sinaloa, and Tepic (crit.).

<sup>1</sup> *Melozone kieneri grisior* van Rossem: Nearest to *M. k. kieneri*, but coloration throughout paler and grayer; back, wings, tail, flanks, and forehead deep grayish olive rather than olive brown or deep olive; hind neck and face cinnamon rufous or tawny instead of Sandford's brown to hazel; under tail coverts pale cinnamon rather than ochraceous-tawny; bill perhaps slightly shorter.

Five specimens examined.

<sup>2</sup> Van Rossem (Bull. Mus. Comp. Zool., 77, p. 423, 1934) suggests San Blas, Nayarit, Mexico, as type locality. The same author, by examination of Bonaparte's type, has established the identity of *P. xantusii* with *P. kieneri*.

*Melozone rubricatum xantusii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 441, 1901—part, Colima to Durango and Tepic (monog.).

*Range*.—Western Mexico, from southern Sinaloa (Mazatlan, Presidio, Plomosas) and southwestern Durango (Chacala) through Jalisco and Nayarit to Colima.

16: Mexico (Tuxpan, Jalisco, 16).

**\**Melozone kieneri rubricatum* (Cabanis). LICHTENSTEIN'S GROUND SPARROW.**

*Atlapetes rubricatus* Cabanis, Mus. Hein., 1, p. 140 (footnote), Oct., 1851—Real Arriba [Puebla], Mexico (type in Berlin Museum); idem, Journ. Orn., 8, p. 413 (in text), 1860 (crit.).

*Melozone rubricata* Cabanis, Journ. Orn., 14, p. 234, 1866—Mexico (crit.).<sup>1</sup>

*Pyrgisoma rubricatum* Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 326—part, Atlixco, Puebla; idem, Exot. Orn., p. 127, pl. 64, fig. 1, 1868—part, Atlixco, Puebla; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 402, 1886—part, Real Arriba and Atlixco; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 148, 1886—Chietla and Acatlan, Puebla; Sharpe, Cat. Bds. Brit. Mus., 12, p. 731, 1888—part, spec. e-g, Oaxaca (Putla) and Puebla (Atlixco).

*Melozone rubricatum rubricatum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 440, 1901—Puebla, Oaxaca, and Guerrero (monog.); Griscom, Bull. Mus. Comp. Zool., 75, p. 421, 1934—Chilpancingo, Guerrero.

*Range*.—Southern portion of Mexican plateau, in states of Puebla (Atlixco, Real Arriba, Chietla, Acatlan), Morelos (Cuernavaca), Oaxaca (Cuicatlán, Putla), and Guerrero (Tlalixtacilla, Chilpancingo, Iguala).

1: Mexico (Iguala, Guerrero, 1).

***Melozone kieneri hartwegi* Brodkorb.<sup>2</sup> CHIAPAS GROUND SPARROW.**

*Melozone biarcuatum hartwegi* Brodkorb, Occ. Pap. Mus. Zool. Univ. Mich., 369, p. 6, April 11, 1938—Finca Esperanza, Chiapas, Mexico (type in Univ. Mich. Museum of Zoology).

*Melozone biarcuatum chiapensis* van Rossem, Bull. Brit. Orn. Cl., 58, p. 126, July 13, 1938—Tuxtla, Chiapas (type in British Museum examined).

*Melozone biarcuatum* (not *Pyrgila biarcuata* Prevost and Des Murs) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 443, 1901—part, Chiapas (Chicharras).

<sup>1</sup> The type specimen, marked "female," is said to lack the dusky pectoral spot.

<sup>2</sup> *Melozone kieneri hartwegi* Brodkorb: Exceedingly close to *M. k. biarcuatum*, but perhaps distinguishable by very slightly darker, less rufous back and whiter chest. The other characters mentioned by the describers do not hold. A very poor race, hardly worthy of recognition.

*Material examined*.—Mexico, Chiapas: Tuxtla, 5; Tapachula, 1; Eureka, Volcan de Tacana, 3.

*Range*.—Highlands of southeastern Mexico, in State of Chiapas (Finca Esperanza, Tuxtla, Chicharras).

**\*Melozone kieneri biarcuatum** (Prévost and Des Murs).<sup>1</sup>  
GUATEMALAN GROUND SPARROW.

*Pyrgila biarcuata* Prévost and Des Murs, Voy. Vénus, Atlas, Ois., pl. 6, 1846.

*Emberiza biarcuata* Prévost and Des Murs, Voy. Vénus, 5, Ois., p. 216, 1849—  
"California" and Guatemala (type, from Guatemala, in Paris Museum).

*Pyrgisoma biarcuatus* Bonaparte, Consp. Gen. Av., 1, (2), p. 486, 1850—  
"California" and Guatemala.

*Pyrgisoma biarcuatum* Sclater and Salvin, Ibis, 1859, pp. 5, 18, pl. 5, fig. 2 (egg)—Dueñas, Guatemala (nest and eggs descr.); Sclater, Cat. Coll. Amer. Bds., p. 120, 1862—part, spec. a, Guatemala; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 325—Guatemala; Salvin, Cat. Strickl. Coll., p. 234, 1882—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 401, 1886—Guatemala (Dueñas, Escuintla, Retalhuleu, Coban); Sharpe, Cat. Bds. Brit. Mus., 12, p. 733, 1888—Guatemala (Dueñas, Barránca Honda, Retalhuleu, Coban).

*Melozone biarcuata* Cabanis, Journ. Orn., 14, p. 233, 1866—part, Guatemala (crit.).

*Melozone biarcuatum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 443, 1901—part, Guatemala; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 117, 1907—Guatemala (Fiscal, Lake Amatitlan, Lake Atitlan, Patulúl, Mazatenango); Griscom, Bull. Amer. Mus. N. H., 64, p. 367, 1932—Guatemala (Finca Sepur, Finca Concepción, Finca Sepacuite, San Lucas, Antigua, Panajachel, Lake Amatitlan, La Carolina, Finca El Cipres) (crit.).

*Range*.—Highlands of Guatemala and El Salvador.<sup>2</sup>

12: Guatemala (Lake Amatitlan, 2; Lake Atitlan, 6; Patulúl, Sololá, 3; Mazatenango, 1).

**\*Melozone kieneri cabanisi** (Sclater and Salvin). CABANIS'S  
GROUND SPARROW.

*Pyrgisoma cabanisi* Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 234—San José, Costa Rica (type in coll. of P. L. Sclater, now in British Museum); idem, Exot. Orn., p. 129, pl. 65, fig. 1, 1868—San José; Salvin, Ibis, 1869, p. 314—Costa Rica (crit.); Boucard, Proc. Zool. Soc. Lond., 1878, p. 56—San José and Cartago, Costa Rica; Nutting, Proc. U. S. Nat. Mus., 5, p. 499, 1883—below San José; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 403, 1886—San José, Grécia, and Irazú, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 112, 1887—Costa Rica (Alajuela, San José, Grécia, Cartago, Navarro); Sharpe, Cat. Bds. Brit. Mus., 12, p. 734, 1888—San José and Irazú, Costa Rica; Cherrie, Auk, 9, p. 248, 1892—San José (habits, nest, and eggs).

<sup>1</sup> *Melozone biarcuatum* and *M. cabanisi*, though characterized by trenchant features, are clearly geographic races of *M. kieneri*, and should accordingly be classed trinominally.

<sup>2</sup> Sixteen additional specimens from Guatemala and nine from El Salvador examined.

*Melozone biarcuata* (not *Pyrgita biarcuata* Prévost and Des Murs) Cabanis, Journ. Orn., 8, p. 412, 1860—San José (crit.); idem, l.c., 14, p. 233, 1866—part, Costa Rica.

*Pyrgisoma biarcuatum* Sclater, Cat. Coll. Amer. Bds., p. 120, 1862—part, spec. b, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—San José; Frantzius, Journ. Orn., 17, p. 301, 1869—San José.

*Pyrgisoma kieneri* (not of Bonaparte) Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 169—Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—San José and Grécia; Frantzius, Journ. Orn., 17, p. 302, 1869 (ex Lawrence).

*Melozone cabanisi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 441, 1901—Costa Rica (monog.); Carriker, Ann. Carnegie Mus., 6, p. 905, 1910—Costa Rica (San José, Alajuela, Cachí, Tierra Blanca).

*Range*.—Highlands of Costa Rica.<sup>1</sup>

8: Costa Rica (Volcan de Irazú, Cartago, 4; San José, 3; unspecified, 1).

**\**Melozone leucotis occipitalis* (Salvin). SALVIN'S GROUND SPARROW.**

*Pyrgisoma occipitale* Salvin, Ibis, (4), 2, p. 446, Oct., 1878—Volcan de Fuego, Guatemala (type in Salvin-Godman Collection, now in British Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 404, 1886—Guatemala (Volcan de Fuego, Volcan de Agua above San Diego, and Savanna Grande); Sharpe, Cat. Bds. Brit. Mus., 12, p. 404, 1888—Guatemala (Volcan de Fuego, Savanna Grande, Barranca Honda).

*Chamaespiza torquata* (not *Pipilo torquatus* Du Bus) Sclater and Salvin, Ibis, 1860, p. 274—Volcan de Fuego, Guatemala.

*Pyrgisoma leucote* (not *Melozone leucotis* Cabanis) Salvin, Ibis, 1866, p. 205—Guatemala; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 326—part, Guatemala; idem, Exot. Orn., p. 128, pl. 64, fig. 2, 1868—part, Volcan de Agua, Guatemala.

*Melozone occipitalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 445, 1901—Guatemala (monog.); Griscom, Bull. Amer. Mus. N. H., 64, p. 368, 1932—Chanquevelje and Palin, Amatitlan, Guatemala.

*Melozone occipitalis grandis* Brodkorb, Occ. Pap. Univ. Mich. Mus. Zool., 369, p. 7, April 11, 1938—Finca Juárez, Chiapas, Mexico (type in Univ. Mich. Mus. of Zoology).

*Range*.—Highlands of Guatemala and southeastern Mexico (State of Chiapas).<sup>2</sup>

1: Guatemala (Volcan de Fuego, 1).

<sup>1</sup> No representative of the *M. kieneri* complex has yet been recorded from either Honduras or Nicaragua.

<sup>2</sup> Three adults from Chiapas (Las Chicharras and Volcan de Tacana) do not differ, either in size or color, from twelve Guatemalan skins.



**\**Melozone leucotis nigrior* Miller and Griscom.<sup>1</sup> BLACKISH GROUND SPARROW.**

*Melozone leucotis nigrior* Miller and Griscom, Amer. Mus. Novit., 184, p. 4, Sept. 24, 1925—Matagalpa, Nicaragua (type in the American Museum of Natural History, New York).

*Pyrgisoma leucote* (not *Melozone leucotis* Cabanis) Salvin, Ibis, 1873, p. 373—Chontales, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 403, 1901—part, Nicaragua (Chontales); Sharpe, Cat. Bds. Brit. Mus., 12, p. 736, 1888—part, spec. a, Chontales, Nicaragua; Salvin and Godman, Ibis, 1892, p. 326—Matagalpa, Nicaragua.

*Melozone leucotis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 444, 1901—part, Nicaragua (Chontales).

*Range*.—Highlands of Nicaragua (Matagalpa, Chontales, etc.).  
1: Nicaragua (Matagalpa, 1).

**\**Melozone leucotis leucotis* Cabanis. WHITE-EARED GROUND SPARROW.**

*Melozone leucotis* Cabanis, Journ. Orn., 8, p. 413, 1860—Costa Rica (type in Berlin Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—Costa Rica (San José, Angostura, Guaitil, San Juan); Frantz, Journ. Orn., 17, p. 302, 1869—Costa Rica (Guaitil, Angostura); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 444, 1901—part, Costa Rica (monog.); Carriker, Ann. Carnegie Mus., 6, p. 905, 1910—Costa Rica (Rio María Aguilar, Sarchí, Alajuela, Carrillo, Escazú, San José, Irazú).

*Melozone leucote* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 169—Angostura.

*Pyrgisoma leucote* Sclater, Cat. Coll. Amer. Bds., p. 120, 1862—part, spec. a, Costa Rica; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 326—part, Costa Rica; idem, Exot. Orn., p. 128, 1868—part, Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 56—Cartago and San José; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 403, 1886—part, Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 12, p. 736, 1888—part, spec. b-h, Costa Rica (San José, Irazú).

*Range*.—Highlands of Costa Rica.<sup>2</sup>

6: Costa Rica (Volcan de Irazú, Cartago, 5; San José, 1).

**Genus *PLAGIOSPIZA* Ridgway**

*Plagiospiza* Ridgway, Auk, 15, p. 224, July, 1898—type, by orig. desig., *Aimophila superciliosa* Swainson.

<sup>1</sup> *Melozone leucotis nigrior* Miller and Griscom: Very similar to *M. l. leucotis*, but black pectoral patch more extensive laterally and the black gular area usually confluent with the black chest, the white and tawny band separating them reduced or even absent.

<sup>2</sup> Nine specimens examined.

**\*Plagiospiza superciliosa (Swainson). STRIPED SPARROW.**

*Aimophila superciliosa* Swainson,<sup>1</sup> Anim. Menag., p. 314, Dec. 31, 1837—Mexico (type in coll. of W. Swainson, now in University Museum, Cambridge, Eng.); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—upper alpine region of Vera Cruz between 3,000 and 4,000 metr. elev.; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 215—Chalchicomula, Puebla; Allen, Bull. Amer. Mus. N. H., 5, p. 39, 1893—Bavispe River and Pacheco, Sonora; Cox, Auk, 13, p. 357, 1895—from San Andrés up to 11,000 ft., Vera Cruz; Chapman, Bull. Amer. Mus. N. H., 10, p. 41, 1898—Las Vegas, Vera Cruz (habits).

*Haemophila superciliosa* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 395, pl. 30, fig. 1, 1886—Durango; idem, Ibis, 1889, p. 239—environs of Mexico City, near Puebla, Popocatepetl (10,000 to 12,000 ft.), Cofre de Perote, San Luis Potosí, Aguas Calientes, and Durango, Mexico; Sharpe, Cat. Bds. Brit. Mus., 12, p. 722, 1888—Durango.

*Plagiospiza superciliosa* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 229, 1901—Mexico (monog.); Miller, Bull. Amer. Mus. N. H., 22, p. 173, 1906—Arroyo del Buey, Durango; van Rossem, Bull. Mus. Comp. Zool., 77, p. 484, 1934—"Chihuahua."

*Range.*—Mexican tableland, from northeastern Sonora, northern Chihuahua,<sup>2</sup> Durango, and San Luis Potosí south to Michoacan, Morelos, Puebla, and Vera Cruz.<sup>3</sup>

18: Mexico (40 miles southwest of Miñaca, Chihuahua, 9; Babicora, Chihuahua, 7; Mt. Orizaba, Vera Cruz, 2).

**Genus CALAMOSPIZA Bonaparte**

*Calamospiza* Bonaparte, Geog. & Comp. List Bds. Eur. & N. Amer., p. 30, 1838—type, by monotypy, *Fringilla bicolor* Townsend.

*Corydalina* Audubon, Syn. Bds. N. Amer., p. 129, 1839—type, by monotypy, *Fringilla bicolor* Townsend.

**\*Calamospiza melanocorys Stejneger. LARK BUNTING.**

*Fringilla bicolor* (not of Linnaeus, 1766) Townsend, Journ. Acad. Nat. Sci. Phila., 7, p. 189, 1837—plains of Platte River, Nebraska (cotypes in U. S. National Museum and the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 14, 1899).

*Calamospiza melanocorys* Stejneger, Auk, 2, p. 49, Jan., 1885—new name for *Fringilla bicolor* Townsend, preoccupied; Allen, Bull. Amer. Mus. N. H., 5, p. 40, 1893—Oputo, Sonora; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 168, 1901 (monog., full bibliog.); Miller, Bull. Amer. Mus.

<sup>1</sup> First published as a nomen nudum by Swainson in Nat. Hist. Classif. Bds., 2, p. 287, July, 1837.

<sup>2</sup> Birds from Chihuahua (Tutuaca) have recently been separated as *P. s. palliata* van Rossem (Bull. Brit. Orn. Cl., 58, p. 127, July 13, 1938).

<sup>3</sup> Nine specimens, mostly from Cofre de Perote, Vera Cruz, examined.

N. H., 21, p. 363, 1905—Escuinapa, Sinaloa; idem, l.c., 22, p. 172, 1906—Rancho Baillon, Durango; Phillips, Auk, 28, p. 88, 1911—Matamoros, Tamaulipas; Grinnell, Univ. Calif. Pub. Zool., 32, p. 186, 1928—Lower California; Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 332, 1928—southern Arizona; van Rossem, Trans. San Diego Soc. N. H., 6, p. 297, 1931—Obregón and Tésia, Sonora; idem, Bull. Mus. Comp. Zool., 77, p. 484, 1934—Sonora (Guaymas, Bacuachi) and Chihuahua.

*Calamospiza bicolor* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 417, 1886—North America south to Sonora (Espia, Guaymas) and Guanajuato, Mexico; Sharpe, Cat. Bds. Brit. Mus., 12, p. 593, 1888 (monog.).

*Range*.—Great Plains of North America, from southern Alberta, Saskatchewan, and Manitoba south to southeastern New Mexico and northwestern Texas, and east to Nebraska and western Minnesota; winters from southern Texas and Arizona south to southern Lower California, Durango, Guanajuato, and Zacatecas, Mexico; accidental in Massachusetts, New York, and South Carolina.

95: Alberta (Pakowki Lake, 1); Saskatchewan (Lake Johnston, Moose Jaw, 3); North Dakota (Carrington, 1; Jamestown, 4; Steele, 1); California (National City, 1); Colorado (Loveland, 1; Altona, Boulder County, 1; 2 miles north of Fraser, 1; Denver, 1; Lakewood, 4; Fort Lyon, 12; Kremmling, 2; near Weston's Ranch, Arkansas River, 1); Arizona (Mesa City, 1; Phoenix, 9; Tucson, 3; Fairbank, 1; Fort Lowell, 3); New Mexico (Deming, 22); Texas (Corpus Christi, 19; Crystal City, 1; Laredo, 1; Rio Grande, 1).

### Genus MYOSPIZA Ridgway

*Myospiza* Ridgway, Auk, 15, p. 224, July, 1898—type, by orig. desig., *Fringilla manimbe* Lichtenstein=*Tanagra humeralis* Bosc.

*Myospiza* Chubb, Ibis, 1910, p. 637—emendation.

### *Myospiza humeralis columbiana* Chapman.<sup>1</sup> COLOMBIAN GRASS-HOPPER SPARROW.

*Myospiza manimbe columbiana* Chapman, Bull. Amer. Mus. N. H., 31, p. 162, 1912—Cali, Cauca, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 567, 1917—Cali and La Manuelita (Cauca), near Honda and Chicoral (Magdalena Valley), Colombia.

*Myospiza humeralis columbiana* Wetmore, Bull. U. S. Nat. Mus., 133, p. 429, 1926—Cali (Cauca) and Yumbo (Valle), Colombia (crit.).

<sup>1</sup> *Myospiza humeralis columbiana* Chapman: Very close to *M. h. humeralis*, but on average darker above with the black streaking broader. Wing, 57–59; tail, 43–46.

I am exceedingly doubtful about the distinctness of this form. Three (somewhat worn) specimens from Cali, Cauca, and a single Bogotá skin are absolutely indistinguishable in color from *M. h. xanthornus* in corresponding plumage, while two from Bucaramanga, with more pronounced reddish brown submarginal edges to the dorsal feathers, can be matched by various individuals from eastern Brazil.

*Coturniculus manimbe* (not *Fringilla manimbe* Lichtenstein) Berlepsch, Journ. Orn., 32, p. 296, 1884—Bucaramanga (crit.).

*Range*.—Tropical zone of Colombia, in the valleys of the Cauca and Magdalena rivers.

***Myospiza humeralis meridana* Todd.<sup>1</sup> VENEZUELAN GRASSHOPPER WARBLER.**

*Myospiza humeralis meridanus* Todd, Proc. Biol. Soc. Wash., 30, p. 127, July, 1917—Guarico, Lara, Venezuela (type in Carnegie Museum, Pittsburgh); Todd and Carriker, Ann. Carnegie Mus., 14, p. 532, 1922—Taquina, Santa Marta, Colombia (crit.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 429, 1926—part, Colombia (Palmar, Boyacá; Páramo de Macotama) (crit.).

*Coturniculus manimbe* (not *Fringilla manimbe* Lichtenstein) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caracas, Venezuela.

*Ammodramus manimbe* Sharpe, Cat. Bds. Brit. Mus., 12, p. 691, 1888—part, spec. b, Caracas, Venezuela.

*Myospiza manimbe* Bangs, Proc. Biol. Soc. Wash., 13, p. 103, 1899—Páramo de Macotama (alt. 9,000 ft.), Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 164, 1900—Bonda.

*Range*.—Tropical (chiefly) zone of northern and eastern Colombia (Santa Marta region; Palmar, State of Boyacá) and northwestern Venezuela (Guarico, Lara; Mérida; Caracas).

**\**Myospiza humeralis humeralis* (Bosc). GRASSHOPPER SPARROW.**

*Tanagra humeralis* Bosc, Journ. d'Hist. Nat. (Choix de Mémoires), 2, No. 17, p. 179, pl. 34, fig. 4, Sept. 1, 1792—Cayenne (location of type not stated, doubtless lost); cf. Chubb, Bull. Brit. Orn. Cl., 31, p. 39, 1913 (nomencl.).

*Fringilla manimbe* Lichtenstein, Verz. Doubl. Berliner Mus., p. 25, after Sept., 1823—Bahia, Brazil (type in Berlin Museum); Wied, Beitr. Naturg. Bras., 3, (1), p. 600, 1830—Muribeca, Rio Itabapua, Rio de Janeiro, and Espirito Santo, Brazil.

*Emberiza manimbe* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 77, 1837—part, Santa Cruz, Bolivia (spec. examined).

*Coturniculus manimbe* Bonaparte, Consp. Gen. Av., 1, (2), p. 481, 1850—part, Bahia; Cabanis, Mus. Hein., 1, p. 133, 1851—Brazil; Burmeister, Journ. Orn., 1, p. 163, 1853—Nova Friburgo, Rio (descr. of nest and eggs); idem, Syst. Uebers. Th. Bras., 3, p. 228, 1856—Nova Friburgo; Sclater, Cat. Coll. Amer. Bds., p. 116, 1862—Brazil and Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 572—Mexicana; Reinhardt, Vidensk.

<sup>1</sup> *Myospiza humeralis meridana* Todd: Stated by Wetmore to be darker above than *M. h. humeralis*, with the pileum more heavily streaked, especially in front, and the gray edgings to the dorsal feathers less prominent; from *M. h. columbiana* distinguished by brownish, instead of black, ground-color of the upper parts.

A single specimen from Mérida can be matched by numerous individuals from Guiana and Brazil, and I feel almost certain that when adequate series become available, this, as well as the preceding race, will be found to be inseparable from *M. h. humeralis*.

Medd. Naturhist. Foren., 1870, p. 215—Minas Geraes (Lagõa Santa, Sete Lagõas, Uberaba, Curvelo, Piauí) and São Paulo (Taubaté, São Bento de Araraquara, Mugy das Cruzes); Pelzeln, Orn. Bras., 3, p. 230, 1870—São Paulo (Mattodentro, Ypanemá, Itararé), Paraná (Rio Verde Pequeno, Cemeterio, Curitiba), Matto Grosso (Villa Bella), and Forte do Rio Branco, Brazil; Forbes, Ibis, 1881, p. 337—Caxangá, Pernambuco; Salvin, Ibis, 1885, p. 216—Roraima, British Guiana.

*Coturniculus peruanus* Bonaparte, Consp. Gen. Av., 1, (2), p. 481, 1850—"Amer. m. occ."=Goyáz, Brazil (type in Paris Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 673 [note], 1906).

*Ammodromus manimbe* Sharpe, Cat. Bds. Brit. Mus., 12, p. 691, 1888—part, spec. c-x, e', "Trinidad," Roraima, Cayenne, Mexiana, Pernambuco, Bahia, and Bolivia; Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—"Porto Real," Brazil; Allen, Bull. Amer. Mus. N. H., 3, p. 374, 1891—Chapada, Matto Grosso; Phelps, Auk, 14, p. 364, 1897—San Antonio and Caripé, Bermúdez, Venezuela; Ihering, Rev. Mus. Paul., 3, p. 166, 1899—Ypiranga, São Paulo; idem, l.c., 4, p. 154, 1900—Cantagallo and Nova Friburgo, Rio; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 6, 1900—Carandasinho and Urucúm, Matto Grosso; Snethlage, Journ. Orn., 54, p. 520, 1906—Marajó Island; idem, l.c., 55, p. 297, 1907—Marajó and Monte Alegre, Brazil; Ménégau, Bull. Mus. Hist. Nat. Paris, 13, p. 499, 1907—French Guiana; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 82, 1910—Bahia (Alagoinhas) and Piauí (Apertado Hora and coast region); Penard, Vog. Guyana, 2, p. 408, 1910—Surinam.

*Myospiza manimbe* Berlepsch and Hartert, Nov. Zool., 9, p. 28, 1902—Orinoco (Altagracia, Quiribana de Caicara, Perico, Maipures, Puerto Samoro, Ciudad Bolívar) and Caura (Suapuré), Venezuela; Ihering, Cat. Faun. Braz., 1, p. 385, 1907—part, São Paulo (Ypiranga, Cachoeira, Bebedouro, Itapura, Itararé, Jundiáhy, São José do Rio Pardo) and Matto Grosso (Porto da Faya); Hellmayr, Nov. Zool., 14, p. 353, 1907—Humaytá, Rio Madeira; idem, l.c., 15, p. 36, 1908—Goyáz and Fazenda Esperança, Goyáz; Berlepsch, l.c., 15, p. 121, 1908—Cayenne, French Guiana; Hellmayr, l.c., 17, p. 281, 1910—Humaytá; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 119, 127, 1912—Mexiana and Marajó, Brazil; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 209, 1913—La Pedrita, Rio Uracoa, Orinoco Delta, Venezuela; Snethlage, Journ. Orn., 61, p. 521, 1913—Monte Alegre, Marajó, and Faro, Brazil; idem, Bol. Mus. Goeldi, 8, p. 433, 1914—Marajó (Rio Arary, São Natal, Tuyuyú, Pindobal), Monte Alegre, and Rio Jamundá (Faro); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 196, 1916—Orinoco Valley and Maripa, Caura, Venezuela (nest and eggs); Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, pp. 42, 61, 1926—Ceará and Maranhão (São Bento); Sztolerman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 189, 1926—Invernadinha, Paraná.

*Myospiza humeralis* Ménégau, Rev. Franç. d'Orn., 5, p. 87, 1917—Caceres and Poconé, Matto Grosso; Chubb, Bds. Brit. Guiana, 2, p. 460, 1921—Roraima, Upper Takutu Mts., and Abary River; Young, Ibis, 1929, p. 246—coast land of British Guiana (habits).

*Myospiza humeralis humeralis* Bangs and Penard, Bull. Mus. Comp. Zool., **62**, p. 92, 1918—vicinity of Paramaribo (crit.); Wetmore, Bull. U. S. Nat. Mus., **133**, pp. 427, 428, 1926 (range, crit.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., **12**, p. 301, 1929—Maranhão (Miritiba, São Bento, Codó [Cocos], Tranqueira) (crit.); Naumburg, Bull. Amer. Mus. N. H., **60**, p. 353, 1930—part, Matto Grosso (Urucúm, Tapirapoan, Juruena, Rio Roosevelt) (crit.); Laubmann, Wiss. Ergeb. Deuts. Gran Chaco Exp., Vogel, p. 253, 1930—Bolivia (Cuevo, Chuquisaca; Fortín Esteros, Tarija).

*Myospiza humeralis manimbe* Bangs and Penard, Bull. Mus. Comp. Zool., **62**, p. 92 (in text), 1918—eastern Brazil (crit.); Holt, Bull. Amer. Mus. N. H., **57**, p. 317, 1928—Bemfica, Serra do Itatiaia, Brazil.

*Myiospiza (Ammodromus) manimbe* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, **76**, p. 181, 1925—Alagoinhas (Bahia) and Piauihy.

*Myospiza humeralis meridana* (not of Todd) Chapman, Bull. Amer. Mus. N. H., **63**, p. 120, 1931—Roraima (crit.).

*Range*.—Eastern and southern Venezuela (savannas of the Orinoco basin, northeast to the hinterland of Cumaná);<sup>1</sup> the Guianas; all of eastern Brazil, from the northern confines (locally in the Amazon Valley, west to Humaytá, Rio Madeira) south to Matto Grosso and Paraná; eastern Bolivia.<sup>2</sup>

31: Venezuela (Cocollar, Sucre, 2; Piacoa, Delta Amacuro, 1); British Guiana (Georgetown, 2; unspecified, 1); Brazil (Bõa Vista,

<sup>1</sup> No authentic record exists from the island of Trinidad.

<sup>2</sup> Careful examination of one hundred specimens covering the whole range as outlined above fails to disclose any other than seasonal and individual variation. Birds from the Orinoco basin, the Guianas (including a good series of topotypical *humeralis*), the upper Rio Branco, and eastern Brazil (*manimbe*) prove to be absolutely identical, if specimens in corresponding condition are compared. Twelve skins from Roraima, at first would seem to be separable by having broader rufous brown submarginal edges to the dorsal feathers, thus causing a brownish rather than grayish appearance of the upper parts. However, all of them, except two, are in exceedingly fresh plumage, and a series from southeastern Brazil (São Paulo and Paraná) in similar stage have just as much reddish brown suffusion above. The two worn individuals from Roraima, on the other hand, are much less brownish, and can be matched by numerous Venezuelan and Brazilian specimens picked at random. There is considerable variation among the series from northeastern Brazil, some being very nearly as dark as *xanthornus*, notably one from the island of Marajó (estuary of the Amazon), which has no trace whatever of brown on the dorsal surface, exactly as certain very dark individuals from Argentina. Birds from Matto Grosso cannot be separated in any way from a Cayenne series, and the same remark applies to single examples examined from the Rio Madeira (Humaytá) and Bolivia.

*Additional material examined*.—Venezuela: Altagracia, Orinoco, 8.—British Guiana: Roraima, 13.—French Guiana: Cayenne, 15.—Brazil: Forte do São Joaquim, Rio Branco, 1; Island of Marajó, 1; Miritiba, Maranhão, 1; Amaração, Piauihy, 1; Apertada Hora, Piauihy, 1; Alagoinhas, Bahia, 2; Bahia, 8; Agua Suja, near Bagagem, Minas Geraes, 1; Rio Verde Pequeno, São Paulo, 1; Mattodentro, São Paulo, 1; Ypanemá, São Paulo, 7; Curytiba, Paraná, 1; Humaytá, Rio Madeira, 1; Villa Bella de Matto Grosso, 1; Tapirapoan, Matto Grosso, 4; Rio Roosevelt, Matto Grosso, 1; Rio Juruena, Matto Grosso, 1; Urucúm, Matto Grosso, 3.—Bolivia: Santa Cruz, 1; Cuevo, Chuquisaca, 1; Fortín Esteros, Tarija, 1.

Amazonas, 4; Serra da Lua, Rio Branco, 6; Santarém, Pará, 2; São Bento, Maranhão, 2; Codó, Cocos, Maranhão, 3; Tranqueira, Maranhão, 1; Santo Amaro, Bahia, 1; Veadeiros, Goyáz, 1; Chapada, Matto Grosso, 3; Piraputanga, Matto Grosso, 2).

**\**Myospiza humeralis xanthornus* (Darwin).<sup>1</sup> DARWIN'S GRASS-HOPPER SPARROW.**

*Ammodramus xanthornus* (Gould MS.) Darwin, Zool. Beagle, 3, Birds, pl. 30, July, 1839—Maldonado, Uruguay (cf. text, p. 90; type in British Museum examined).

*Emberiza manimbe* (not *Fringilla manimbe* Lichtenstein) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 77, 1837—part, Corrientes (spec. examined).

*Ammodramus manimbe* Darwin, Zool. Beagle, 3, Birds, p. 90, Nov., 1839—Maldonado, Uruguay; Kerr, Ibis, 1901, p. 223—Paraguayan Chaco.

*Coturniculus manimbe* Bonaparte, Consp. Gen. Av., 1, (2), p. 481, 1850—part, Maldonado; Burmeister, Reise La Plata St., 2, p. 486, 1861—near Paraná; Doering, in Roca, Inf. Ofic. Exp. Rio Negro, p. 40, 1881—Valley of the Rio Colorado, Patagonia; White, Proc. Zool. Soc. Lond., 1882, p. 600—Santo Tomé, Corrientes; Barrows, Bull. Nutt. Orn. Cl., 8, p. 131, 1883—Entre Ríos (Concepción del Uruguay) and Buenos Aires (Bahía Blanca and Sierra de la Ventana); Berlepsch, Journ. Orn., 35, p. 8, 1887—Lambaré, Paraguay; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 198, 1890—Córdoba.

<sup>1</sup> *Myospiza humeralis xanthornus* (Darwin): Similar to *M. h. humeralis*, but without, or with very little, rufescent or brownish submarginal edges to the dorsal feathers, the prevailing tone of the upper parts being blackish and gray.

The only distinctive feature of this form is the reduction or even absence of brownish tones on the upper parts, and yet this is far from being constant. While a good many individuals from western Argentina are very dark indeed, others have distinct, though narrow reddish brown lateral margins to the black central streaks, and run very close to certain specimens from Brazil and Guiana. For instance, two from Uruguay are hardly separable from one taken at São Bento, Maranhão, and another from the island of Marajó, as we have remarked in the preceding footnote, is indistinguishable from Formosa birds. The type of *M. m. nigrostriata* is an adult in very worn breeding plumage, and the type of *M. m. var. dorsalis* is, also. Further subdivision of the Argentine form is impossible, the alleged characters of *tucumanensis* being completely bridged by individual variation. The proper allocation of the inhabitants of eastern Paraguay and the adjoining districts of Corrientes is a matter of personal preference, and largely depends on the hazards of the available material. One bird from Villa Rica is as typical of *xanthornus*, as one from Bernalcúe (east of Asunción) and another from Corrientes are of *humeralis*. The region appears to be an area of intergradation, as might be expected from its geographical intermediacy. A single adult from Rio Grande do Sul (in rather worn condition) again is "ultratypical" *xanthornus*.

*Additional material examined*.—Paraguay: Bernalcúe, Asunción, 2; Rio Negro, 1; Puerto Pinasco, 1.—Argentina: Tucumán, 4; San José, Formosa, 5; Tapiakolé, Formosa, 5; Tacaaglé, Formosa, 1; Estancia Inez, near Hersilia, Santa Fé, 1; La Pastora, Córdoba, 1; near Paraná, Santa Fé, 1; Bahía Blanca, Buenos Aires, 2; Corrientes, 1.—Uruguay: Maldonado, 1 (the type); Santa Elena, 1.—Rio Grande do Sul: Pedras Brancas, 1.

- Coturniculus peruanus* (not of Bonaparte) Burmeister, Journ. Orn., 8, p. 256, 1860—near Paraná, Santa Fé; Sclater and Hudson, Arg. Orn., 1, p. 60, 1888—Argentina (habits); Holland, Ibis, 1893, p. 484—Santa Elena, Buenos Aires (habits, nest, and eggs); Aplin, Ibis, 1894, p. 170—Uruguay (Porongos, Santa Elena).
- Coturniculus manimbe* var. *dorsalis* Ridgway, in Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 1, p. 549, 1874—Buenos Aires and Uruguay (type, from Buenos Aires, in U. S. National Museum).
- Ammodromus manimbe* Sharpe, Cat. Bds. Brit. Mus., 12, p. 691, 1888—part, spec. y-d', Rio Grande do Sul (Pelotas), Uruguay (Maldonado, Montevideo), Buenos Aires (Quilmes), and Córdoba (Cosquin); Ihering, Ann. Est. Rio Grande do Sul, 16, p. 121, 1899—Pedras Brancas, Rio Grande do Sul.
- Myospiza manimbe* Oberholser, Proc. U. S. Nat. Mus., 25, p. 146, 1902—Sapucay, Paraguay; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 179, 1902—Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 44, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 385, 1907—part, Novo Hamburgo, Rio Grande do Sul; Hartert and Venturi, Nov. Zool., 16, p. 179, 1909—from Buenos Aires northwards (eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 393, 1910 (range in Argentina); Chubb, Ibis, 1910, p. 146—Sapucay, Paraguay; Grant, Ibis, 1911, p. 99—Paraguay (Villa Oliva, Monte Alto) and Formosa (Colonia Mihanovitch); Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 660, 1924—Buenos Aires and Entre Ríos.
- Myospiza manimbe* Bertoni, Faun. Parag., p. 64, 1914—Paraguay (Mondañ, Encarnación).
- Myospiza manimbe nigrostriata* Cherrie, Bull. Amer. Mus. N. H., 35, p. 189, May, 1916—Rio Negro (a small tributary of the Rio Pilcomayo, thirty miles from its mouth), Paraguay (type in the American Museum of Natural History, New York, examined).
- Myospiza humeralis tucumanensis* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 92, April, 1918—Tucumán, Argentina (type in Museum of Comparative Zoology, Cambridge, Mass.); Dinelli, El Hornero, 3, p. 258, 1924—Tucumán (nest and eggs descr.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 430, 1926—Tapia, Tucumán, and Victorica, Pampa (crit.); Castellanos, El Hornero, 5, p. 325, 1934—Valle de los Reartes, Córdoba.
- Myospiza humeralis* (not *Tanagra humeralis* Bosc) Tremoleras, El Hornero, 2, p. 23, 1920—Uruguay (Montevideo, Maldonado, Canelones, Flores, San José).
- Myospiza humeralis manimbe* Serié and Smyth, El Hornero, 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 172, 1923—Zelaya, Buenos Aires; Marelli, l.c., 4, p. 199, 1933—Bahia Blanca, Buenos Aires.
- Myospiza humeralis dorsalis* Wetmore, Bull. U. S. Nat. Mus., 133, p. 429, 1926—Paraguay (Puerto Pinasco), Argentina (Riachó Pilaga, Formosa; Las Palmas, Avia Terai, and General Pinedo, Chaco; Concepción del Uruguay, Entre Ríos; Buenos Aires, Guaminí, and Carhue, Buenos Aires), Uruguay (Montevideo, Lazcano), and Rio Grande do Sul (Santa Maria) (crit.); Wilson, El Hornero, 3, p. 361, 1926—General López, Santa Fé (habits); Smyth, l.c., 4, p. 146, 1928—Santa Elena (eggs descr.).



*Myospiza humeralis humeralis* Naumburg, Bull. Amer. Mus. N. H., 60, p. 353, 1930—part, Puerto Pinasco, Paraguay (crit.).

*Myospiza humeralis xanthornus* Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 254, 1930—San José, Tapikiolé, and Tacaaglé, Formosa (crit.); idem, Verh. Orn. Ges. Bay., 20, p. 326, 1934—La Geraldina, Santa Fé (crit.).

*Range*.—Argentina, from Tucumán and Formosa south to the Rio Colorado of Patagonia; Paraguay; Uruguay; and extreme southern Brazil (Rio Grande do Sul).

4: Paraguay (Villa Rica, 1); Uruguay (Quebrada de los Cuervos, 45 km. north of Treinta y Tres, 2); Argentina (Concepción, Tucumán, 1).

**\**Myospiza aurifrons*<sup>1</sup> *aurifrons* (Spix). YELLOW-BROWED SPARROW.**

*Tanagra aurifrons* Spix, Av. Bras. Spec. Nov., 2, p. 38, pl. 50, fig. 2, 1825—"in provincia Bahia," errore, Fonte Boa, Rio Solimões, Brazil, suggested as type locality by Hellmayr, Nov. Zool., 17, p. 281, 1910 (type lost, formerly in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 673, 1906).

*Coturniculus peruanus* (not of Bonaparte) Selater, Proc. Zool. Soc. Lond., 26, p. 455, 1858—Gualaquiza, eastern Ecuador; idem, Cat. Coll. Amer. Bds., p. 117, 1862—Ecuador (Gualaquiza) and Bolivia; Selater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 182—Peru (Nauta, upper and lower Ucayali); idem, l.c., 1867, pp. 750, 977—Chyavetas and Pebas, Peru; idem, l.c., 1869, p. 597—Cosnipata, Peru; Pelzeln, Orn. Bras., 3, p. 230, 1870—Rio Mamoré (Cachoeira de Guajará Guaçu), Rio Madeira (Borba), and Barra do Rio Negro, Brazil (spec. examined); Selater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 264—Peru (Nauta, upper and lower Ucayali, Chyavetas, Pebas); Taczanowski, l.c., 1874, p. 521—Monterico, Amable Maria, and Ropaybamba, Peru; idem, l.c., 1882, p. 17—Yurimaguas, Peru; idem and Berlepsch, l.c., 1885, p. 85—Machay and Mapoto, Ecuador; Taczanowski, Orn. Pér., 3, p. 43, 1886—Peru (Monterico,

<sup>1</sup> *Myospiza aurifrons* differs from *M. humeralis* chiefly by its more strongly graduated tail and the much greater amount of yellow about the face. Instead of merely a short yellow supraloral streak, it has practically the whole loreal region bright yellow (excepting a small dusky spot in front of the eye), and this color is not only continued in a distinct (somewhat duller, more olive yellow) superciliary stripe along the upper margin of the auriculars, but also extends down to the lower eyelid and cheeks, and frequently borders even the chin. Besides, the upper parts nearly always lack the rufous brown lateral margins, so conspicuous in some races of *M. humeralis*, and the first (outermost) primary is generally shorter, being equal to the sixth, seventh, or eighth instead of falling between the fourth and sixth primaries. Certain individuals of *M. humeralis*, however, have it equally short. The nature and variability of these differences, together with the fact that the two entities to a large extent replace one another geographically, would seem to speak for conspecific relationship. Yet the distribution of *M. a. aurifrons* and *M. h. humeralis* in Lower Amazonia is so singularly "interwoven," both having even been taken at Faro, Rio Jamundá, that caution warrants keeping them for the present as separate specific units.

- Amable Maria, Ropaybamba, Ucayali, Chyavetas, Pebas, Yurimaguas); Salvadori and Festa, *Boll. Mus. Zool. Torino*, **14**, No. 357, p. 27, 1899—Gualaquiza and Zamora, Ecuador.
- Ammodromus peruanus* Sharpe, *Cat. Bds. Brit. Mus.*, **12**, p. 693, 1888—Ecuador (Gualaquiza, "Jima," Sarayacu), Peru (Cosnipata, La Merced, Sarayacu, Yurimaguas, Ucayali, Nauta), and Bolivia; Berlepsch, *Journ. Orn.*, **37**, p. 299, 1889—Yurimaguas; idem and Stolzmann, *Proc. Zool. Soc. Lond.*, 1896, p. 353—La Merced, Peru; Snethlage, *Journ. Orn.*, **54**, p. 520, 1906—Santo Antonio do Prata and Rio Capim, Pará.
- Myospiza peruana* Ihering, *Rev. Mus. Paul.*, **6**, "1904," p. 432, pub. 1905—Rio Juruá (eggs descr.); Berlepsch and Stolzmann, *Ornis*, **13**, pp. 84, 112, 1906—Santa Ana and Huaynapata, Peru.
- Ammodramus peruanus* Snethlage, *Journ. Orn.*, **55**, p. 297, 1907—Rio Guamá (Ourém), Santo Antonio do Prata, and Castanhal, Pará.
- Myospiza aurifrons peruana* Chapman, *Bull. U. S. Nat. Mus.*, **117**, p. 111, 1921—Rio Comerciato, Idma, and Santa Ana, Peru (crit.).
- Myospiza aurifrons* Hellmayr, *Abhandl. 2. Kl. Bayr. Akad. Wiss.*, **22**, No. 3, p. 673, 1906 (nomencl.); Ihering, *Cat. Faun. Braz.*, **1**, p. 385, 1907—Rio Juruá (range excl. of Goyáz); Hellmayr, *Nov. Zool.*, **14**, pp. 9, 45, 1907—Itaituba (Rio Tapajóz) and Teffé (Rio Solimões), Brazil; Snethlage, *Journ. Orn.*, **56**, pp. 11, 500, 524, 1908—Rio Purús (Cachoeira, Bom Lugar), Rio Tapajóz (Goyana), and Rio Tocantins (Arumatheua); Hellmayr, *Nov. Zool.*, **17**, p. 281, 1910—Borba, Rio Madeira; idem, *Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss.*, **26**, No. 2, pp. 16, 88, 1912—Peixe-Boi, Pará, and Pará localities; Ihering, *Rev. Mus. Paul.*, **9**, p. 486, 1914—Rio Juruá, Brazil (nest and eggs descr.); Snethlage, *Bol. Mus. Goeldi*, **8**, p. 433, 1914—Castanhal, Peixe-Boi, Santo Antonio do Prata, Rio Guamá (Ourém), Rio Tocantins (Baião, Arumatheua), Rio Iriri (Cachoeira Grande), Rio Tapajóz (Goyana), Rio Jamauchim (Santa Helena), Rio Purús (Cachoeira, Bom Lugar), Arumanduba, and Rio Jamundá (Faro); Chapman, *Bull. Amer. Mus. N. H.*, **36**, p. 567, 1917—Florescia and La Morelia, Caquetá, Colombia; Bangs and Noble, *Auk*, **35**, p. 462, 1918—Bellavista, Peru; Stone, *Proc. Acad. Nat. Sci. Phila.*, **80**, p. 173, 1928—Castanhal and Pará.
- Myospiza aurifrons aurifrons* Naumburg, *Bull. Amer. Mus. N. H.*, **60**, p. 355, 1930—northern Matto Grosso (Guajará Guaçú); Zimmer, *Field Mus. Nat. Hist., Zool. Ser.*, **17**, p. 470, 1930—Vista Alegre, Chinchao, and Puerto Bermúdez, Peru (crit.).
- Myospiza aurifrons meridionalis* Todd, *Proc. Biol. Soc. Wash.*, **33**, p. 71, 1920—Rio Surutú, Bolivia (type in Carnegie Museum, Pittsburgh).
- Myospiza aurifrons zamorae* Chapman, *Amer. Mus. Novit.*, **160**, p. 2, Feb., 1925—Zamora, eastern Ecuador (type in the American Museum of Natural History, New York); idem, *Bull. Amer. Mus. N. H.*, **55**, p. 625, 1926—Zamora and Rio Suno, Ecuador.
- Colurniculus manimbe* (not *Fringilla manimbe* Lichtenstein) Layard, *Ibis*, **1873**, p. 381—Pará; Goeldi, *Ibis*, **1903**, pp. 481, 498—Rio Capim, Pará.
- Ammodromus manimbe* Sharpe, *Cat. Bds. Brit. Mus.*, **12**, p. 840, 1888—spec. f, Pará.

*Ammodramus manimbe* Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—falls of the Rio Madeira, Bolivia.

*Range*.—Valley of the Amazon east to Pará (chiefly south of the river, but also recorded from various spots on the north bank, such as Arumanduba, Faro, Itacoatiará, Manáos), and in Upper Amazonia, from southeastern Colombia (Caquetá) south through Ecuador<sup>1</sup> and Peru to the northern and eastern foot of the Andes in Bolivia.<sup>2</sup>

34: Peru (Moyobamba, 3; Yurimaguas, Loreto, 9; Chinchao, Huánuco, 2; Vista Alegre, Huánuco, 3; Puerto Bermúdez, Junín, 1; San Ramón, Junín, 3); Brazil (Manáos, 3; Itacoatiará, 6; Porto Velo, Rio Madeira, 3); Bolivia (Todos Santos, 1).

***Myospiza aurifrons cherriei* Chapman.<sup>3</sup> CHERRIE'S YELLOW-BROWED SPARROW.**

*Myospiza cherriei* Chapman, Bull. Amer. Mus. N. H., 33, p. 183, March, 1914—Villavicencio, llanos at eastern base of eastern Andes, Colombia

<sup>1</sup> Hartert's record (Nov. Zool., 5, p. 485, 1898) of *Ammodramus* cf. *peruanus*, based on a single bird in juvenile plumage from Cayambé (alt. 9,300 ft.), northwestern Ecuador, certainly does not belong here, and probably refers to *A. savanarum cauae* Chapman.

<sup>2</sup> Further subdivision of this race appears to be impracticable. Seasonal and individual variation are considerable in these birds, and extreme caution must be used in making comparisons. With a very full series before me I am unable to appreciate any differences between Brazilian birds (*aurifrons*) and others from eastern Ecuador and northern Peru (*zamorae*). On the other hand, specimens from southeastern Peru (Yahuar Mayo and Inambari Valley), Bolivia, and the Rio Madeira average slightly paler, more grayish above with the dusky central streaks to the feathers less pronounced, and somewhat whiter beneath with less grayish suffusion on the chest, but the divergency is so largely bridged by individual variation that I doubt the advisability of recognizing this form, for which *M. a. meridionalis* would be available.

A specimen from the mouth of the Rio Curaray, eastern Ecuador, is above very nearly as brown as *M. humeralis*, and has the yellow cheek spot but faintly suggested.

*Additional material examined*.—Ecuador: Zamora, 4; Gualaquiza, 4; mouth of the Rio Curaray, 3; "Rio Napo," 1; Sarayacu, 1.—Peru: Yurimaguas, 2; Rioja, 1; La Merced, 4; Yahuar Mayo, Carabaya, 4; La Aroya, Inambari Valley, 3; Caradoc, Marcapata Valley, 3.—Bolivia: Yungas of Cochabamba, 2.—Brazil: Peixe-Boi, Pará, 3; Rio Tocantins, 1; Itaituba, Rio Tapajóz, 1; Manáos, 1; Borba, Rio Madeira, 1; Guajará Guaçú, Rio Mamoré, northern Matto Grosso, 1; Teffé, Rio Solimões, 1.

<sup>3</sup> *Myospiza aurifrons cherriei* Chapman: Similar to *M. a. aurifrons*, but without any yellow on the cheeks. Wing (female), 59; tail, 45. In strongly graduated tail, length of outermost primary (equal to the seventh), yellowish loreal region (without any white), and distinct yellow superciliary streak, this bird, of which but one adult (the type) is known, agrees precisely with *M. aurifrons*, and the only constant distinctive feature is the absence of yellow on the cheeks. This character, however, loses much of its value in view of the fact that also in two or three individuals of *aurifrons* this spot is merely suggested. There is no yellow border around the gonydeal angle as in numerous specimens of *aurifrons*, and only a few pale yellowish plumules on the lower eyelid. The coloration of the upper parts, which was

(type in the American Museum of Natural History, New York, examined); idem, l.c., 36, p. 567, 1917—Villavicencio.

*Range*.—Tropical zone of the eastern base of the eastern Andes of Colombia (Villavicencio).

### Genus **PASSERCULUS** Bonaparte<sup>1</sup>

*Passerculus* Bonaparte, Geog. & Comp. List, p. 33, 1838—type, by subs. desig. (Gray, List Gen. Bds., p. 46, 1840), *Fringilla savanna* Wilson.

#### **\*Passerculus sandwichensis princeps** Maynard. IPSWICH SPARROW.

*Passerculus princeps* Maynard, Amer. Nat., 6, No. 10, p. 637, Oct., 1872—based on *Centronyx bairdii* (not *Emberiza bairdii* Audubon) Maynard, Naturalist's Guide, p. 113, col. pl., 1872—Ipswich Beach, Massachusetts (type in coll. of C. J. Maynard, present location unrecorded); Sharpe, Cat. Bds. Brit. Mus., 12, p. 679, 1888—Long Island and Duxbury (Massachusetts); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 189, 1901 (monog.); Saunders, Auk, 19, p. 267, 1902—Sable Island (habits, nest, and eggs).

*Ammodramus princeps* Dwight, Mem. Nutt. Orn. Cl., 2, pp. 1-56, col. pl., 1895 (monog.).

*Passerculus sandwichensis princeps* Peters and Griscom, Bull. Mus. Comp. Zool., 80, p. 447, 1938 (crit.).

*Range*.—Breeds on Sable Island, Nova Scotia; winters from Sable Island south along the sand dunes of the Atlantic coast of North America to Georgia.

13: Maine (Scarboro, 1); Massachusetts (Ipswich, 1; Chatham, 1; Barnstable, 1; Duxbury, 3; Hyannis, 2; Mount Sinai Harbor, 2); Connecticut (New Haven, 1; West Haven, 1).

#### **\*Passerculus sandwichensis labradorius** Howe.<sup>2</sup> LABRADOR SAVANNAH SPARROW.

*Passerculus sandwichensis labradorius* Howe, Contrib. N. Amer. Orn., 1, p. 1, Oct. 14, 1901—Lance au Loup, Labrador (type now in Museum of Com-

thought by the describer to approach *M. humeralis*, is by no means different from various examples of *aurifrons*, an adult female from Todos Santos, Bolivia, being an exact match of the type. Therefore, I cannot see that *M. cherriei* has any close relation to *M. humeralis*, and consider it a race of *M. aurifrons*, which it obviously represents in the northern parts of Amazonian Colombia. Further information on its range is much desired.

*Material examined*.—Colombia: Villavicencio, 1 (the type).

<sup>1</sup> An excellent revision of this genus was published by Peters and Griscom (Bull. Mus. Comp. Zool., 80, pp. 443-478, 1938) while this volume was passing through the press.

<sup>2</sup> *Passerculus sandwichensis labradorius* Howe: Similar to *P. s. savanna*, but in unworn plumage darker, the centers of the dorsal feathers blacker, and the ventral surface richer in tone. The supposed larger size is denied by recent authors.

parative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 382, 1930); idem, Auk, 19, p. 85, 1902 (crit.); Emilio and Griscom, Auk, 49, p. 229, 1932 (migration and winter range; crit.); Peters and Griscom, Bull. Mus. Comp. Zool., 80, p. 452, col. pl., figs. 3, 3a, 1938 (crit.).

*Passerculus sandwichensis savanna* (not *Fringilla savanna* Wilson) Townsend and Allen, Proc. Bost. Soc. N. H., 33, p. 395, 1907—Labrador (crit.).

*Range*.—Coast of the Labrador Peninsula south to the Mingan Islands and Newfoundland; migrates along the Atlantic coast of North America and winters in Florida.

8: Newfoundland (Brigus, Avalon Peninsula, 4); Labrador (Battle Harbor, 1; Indian Harbor, 3).

**\**Passerculus sandwichensis savanna* (Wilson). EASTERN SAVANNAH SPARROW.**

*Fringilla savanna* Wilson, Amer. Orn., 3, p. 55, pl. 22, fig. 3, 1811—Atlantic coast, from Savannah, Georgia, to Great Egg Harbor, New Jersey (the first place accepted as type locality; type in Peale's Museum, evidently lost).

*Ammodramus* (*Passerculus*) *sandwichensis wilsonianus* Coues, Auk, 14, p. 93, 1897—new name for *Fringilla savanna* Wilson.

*Passerculus sandwichensis bradburyi* Figgins, Proc. Color. Mus. N. H., 2, No. 1, p. 2, April, 1918—James Island, South Carolina (type in Colorado Museum of Natural History).

*Passerculus sandwichensis savanna* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 192, 1901—eastern North America (in part); Peters and Griscom, Bull. Mus. Comp. Zool., 80, p. 450, 1938 (crit.).

*Range*.—Breeds in eastern North America from Nova Scotia, northern New Brunswick, southern Quebec, and southern Ontario south to northern Iowa (casually Missouri), northern Indiana,<sup>1</sup> the mountains of Pennsylvania, Connecticut, and New Jersey; winters from southern Indiana and southern New Jersey south to northeastern Mexico, the Gulf coast, Bahamas, and Cuba; casual in Bermuda.<sup>2</sup>

157: Maine (Brewer, 1; Upton, 1; Bethel, 1); New York (Orient, 1; Shelter Island, 1; Kings County, 3); Massachusetts (Brookline, 1; Revere Beach, 1; Cambridge, 2; Chatham, 4; West Yarmouth,

<sup>1</sup> Birds from the central United States should be carefully studied with respect to their relation to *P. s. campestris*.

<sup>2</sup> Messrs. Peters and Griscom (Bull. Mus. Comp. Zool., 80, p. 454, Jan., 1938) distinguish *P. s. oblitus* (type, from Fort Churchill, Manitoba, in National Museum of Canada). It breeds from the west side of Hudson Bay south to northern Minnesota and Lake Superior, east to western Ontario and Lake St. John, Quebec, and migrates between the Alleghenies and the eastern border of the Great Plains.

5); Connecticut (East Hartford, 30); Wisconsin (Beaver Dam, 13); Illinois (Beach, Lake County, 3; Fox Lake, Lake County, 2; Lake Forest, 2; Chicago, 6; Worth, 1; Joliet, 3; Roby, 1; Normal, 1; Warsaw, 1); Indiana (English Lake, 1); Texas (Giddings, 1; Port Lavaca, 1; Corpus Christi, 16); Louisiana (Buras, 5; Chef Menteur, 4); Mississippi (Holly Springs, 1); Florida (Nassau County, 4; Pilot Town, 1; Santa Rosa Island, 6; Gainesville, 5; Enterprise, 1; Canaveral Club, 1; Wilson, 5; Banana River, 2; Jupiter, 2; West Jupiter, 1; Palm Beach, 1; Puntarasa, 1; Miami Beach, 5; Key West, 1; Pine Island, 1); Great Bahama Island, 1; Andros, 3; Cuba (Ysnaga, Prov. Santa Clara, 2); Mexico (Yucatan, 1).

**\**Passerculus sandwichensis sandwichensis* (Gmelin). ALEUTIAN SAVANNAH SPARROW.**

*Emberiza sandwichensis* Gmelin, Syst. Nat., 1, (2), p. 875, 1789—based on "Sandwich Bunting" Latham, Gen. Syn. Bds., 2, (1), p. 202; "at Aoonalashka and Sandwich Sound" (type in coll. of Sir Joseph Banks, evidently lost).

*Emberiza arctica* Latham, Ind. Orn., 1, p. 414, 1790—new name for *Emberiza sandwichensis* Gmelin.

*Emberiza chrysops* Pallas, Zoogr. Rosso-Asiat., 2, p. 45, pl. 48, fig. 1, "1811"—Unalaska.

*Passerculus sandwichensis sandwichensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 190, 1901—Unalaska Island, in winter to northern California (monog.); Oberholser, Sci. Publ. Cleveland Mus. N. H., 1, p. 111, 1930—Aleutian Islands; Swarth, Condor, 35, p. 244, 1933 (crit.); idem, Pacif. Coast Avif., 22, p. 48, 1934—Unalaska and Akutan Islands; Peters and Griscom, Bull. Mus. Comp. Zool., 80, p. 448, 1938 (crit.).

*Range*.—Breeds on Unalaska and others of the Aleutian Islands and on the adjacent part of Alaska Peninsula; winters eastward and southward along the coast of British Columbia to northern California.

6: Alaska (Dutch Harbor, 3; Unalaska Island, 1; Amaknak Island, 2).

**\**Passerculus sandwichensis anthinus* Bonaparte.<sup>1</sup> KODIAK SAVANNAH SPARROW.**

*Passerculus anthinus* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, No. 25, p. 920, 1853—"Kadiak" Island (location of type not stated and unknown); idem, Not. Orn. Coll. Delattre, p. 20, 1854 (reprint).

<sup>1</sup> *Passerculus sandwichensis anthinus* Bonaparte: Similar to *P. s. sandwichensis*, but smaller, with slenderer, shorter bill, and more tawny upper parts. From the form of the Savannah Sparrow breeding in northern and interior Alaska it is dis-

*Passerculus sandwichensis anthinus* Brooks and Swarth, Pacif. Coast Avif., 17, p. 91, 1925—southeastern coast of Alaska (crit.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 161, 1928—Lower California (near San Ramón and San Luis Island); Oberholser, Sci. Publ. Cleveland Mus. N. H., 1, p. 111, 1930—part, coast of Alaska; van Rossem, Trans. San Diego Soc. N. H., 6, p. 297, 1931—Tésia, Sonora; Swarth, Condor, 35, p. 244, 1933—coast of Alaska (crit., range); idem, Pacif. Coast Avif., 22, p. 48, 1934—Sitkalidak Island; Peters and Griscom, Bull. Mus. Comp. Zool., 80, p. 463, 1938 (crit.).

*Ammodramus sandwichensis xanthophrys* Grinnell, Condor, 3, p. 21, Jan., 1901—St. Paul, Kodiak, Alaska (type in Stanford University).

**Range.**—Breeds on the coast of Alaska from Kodiak Island south-eastwards (apparently not in the Prince William Sound region), on islands and adjacent mainland west of the Coast Range from Cross Sound south perhaps to Dixon Entrance; migrates along the coast to Vancouver Island and in smaller numbers into northern California (fide H. S. Swarth), northern Lower California (fide J. Grinnell), and Sonora (Tésia).

2: Alaska (Howkan, 1; British Columbia (Sumas, 1).

**\**Passerculus sandwichensis* subsp.<sup>1</sup> WESTERN SAVANNAH SPARROW.**

*Passerculus sandwichensis alaudinus* (not of Bonaparte) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 194, 1901—in part (monog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 160, 1928—Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 298, 1931—Tésia, Sonora; Swarth, Condor, 35, p. 244, 1933 (crit., range); idem, Pacif. Coast Avif., 22, p. 48, 1934—Nome and Nunivak Island, Alaska (breeding; crit.).

**Range.**—Breeds in Alaska, coast and interior from the Alaska Peninsula northward; inland of the coast ranges from Prince William Sound southeastwards at least to central British Columbia (fide

tinguished by richer brown coloration, extensive suffusion of yellow on head and neck, smaller size, and decidedly heavier bill.

According to Swarth, who has had excellent opportunities of investigating its status, this form is restricted to the area outlined above, and should be kept separate from the bird of interior Alaska.

Peters and Griscom (Bull. Mus. Comp. Zool., 80, pp. 465–466, 1938) give good reasons for disagreeing with Swarth's nomenclature of these birds. They claim that breeding birds from Kodiak are identical with the inhabitants of Alaska generally, and describe the Sitka bird as *P. s. crassus* (p. 469).

<sup>1</sup> *Passerculus sandwichensis* subsp. is the form until recently known as *P. s. alaudinus*, a term which turned out to apply to *P. s. bryanti*. As compared with *P. s. sandwichensis* and *P. s. anthinus*, it is characterized by Swarth as being more grayish in general coloration with lessening of the yellowish and brownish tinges and having a relatively long and slender bill. It may remain unnamed pending the results of the forthcoming revision of the group by Messrs. Peters and Griscom.

This paper has since come out, and a discussion of the present form is found s. n. *P. s. anthinus* (Bull. Mus. Comp. Zool., 80, pp. 463–467, 1938).

H. S. Swarth); winters in California and Lower California and from Texas to Mexico, and in migration east to the Great Plains.

29: Alaska (Nome, 1); California (Nicasio, 1; Hayward, 6; Miller, 1; San Francisco, 1; Palo Alto, 1; Baden, San Mateo County, 1; Stockton, 1; Monterey, 4; National City, 1; Los Angeles County, 1; Sausalito, 1); Arizona (Phoenix, 2; Tucson, 1; Fort Mohawk, 1); Texas (Brill, 1); Mexico (Babicora, Chihuahua, 4).

**\**Passerculus sandwichensis nevadensis* Grinnell.<sup>1</sup> NEVADA SAVANNAH SPARROW.**

*Passerculus sandwichensis nevadensis* Grinnell, Univ. Calif. Pub. Zool., 5, No. 9, p. 312, Feb. 21, 1910—Soldier Meadows, Humboldt County, Nevada (type in Museum of Vertebrate Zoology, Berkeley); idem, l.c., 32, p. 161, 1928—Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 298, 1931—Tésia, Sonora; Peters and Griscom, Bull. Mus. Comp. Zool., 80, p. 467, 1938 (crit.).

*Passerculus sandwichensis brooksi* Bishop, Condor, 17, p. 187, Sept., 1915—Chilliwack, British Columbia (type in coll. of Louis B. Bishop); Oberholser, Sci. Publ. Cleveland Mus. N. H., 1, pp. 110, 111, 1930—coast of southwestern British Columbia and Washington (crit.); Swarth, Condor, 35, p. 245, 1933 (crit.).

*Passerculus sandwichensis campestris* Taverner, Proc. Biol. Soc. Wash., 45, p. 204, Nov., 1932—Red Deer, Alberta (type in National Museum of Canada).

*Passerculus sandwichensis alaudinus* (not of Bonaparte) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 194, 1901 (monog., in part); Oberholser, Sci. Publ. Cleveland Mus. N. H., 1, p. 111, 1930—(range).

**Range.**—Breeds in the Transition and Upper Austral zones of the Great Basin District from extreme southern British Columbia, eastern Oregon, and northeastern California, east to northern Colorado, Montana, and North Dakota, and south to the Kern River Valley, California, southern Nevada, and northern New Mexico; winters south to northern Lower California and northern Mexico.

<sup>1</sup> *Passerculus sandwichensis nevadensis* Grinnell: Resembling the preceding race, but much paler throughout in all plumages; white replacing buff, black streaks thus more conspicuously contrasted, there being a minimum amount of hazel marginings; size slightly less.

Birds from the coast of British Columbia (lower Fraser Valley) have been described by Bishop as *P. s. brooksi*. While Oberholser thinks it might be separated by reason of brighter colors and smaller size, Swarth declares himself unable to distinguish between *brooksi*, of the coast, and *nevadensis*, of the interior. Peters and Griscom (Bull. Mus. Comp. Zool., 80, p. 461, 1938), however, have reinstated the name for the birds of Vancouver Island and the coast of British Columbia and Washington.

<sup>2</sup> The Chancel specimen, upon which the extension of the winter range of *P. s. "alaudinus"* to Guatemala is based, requires careful re-examination in order to determine its subspecific status.



31: British Columbia (Okanagan, 3); Saskatchewan (Quill Lake, 8; Lake Johnston, Moose Jaw, 2); North Dakota (Carrington, 1); South Dakota (Wakonda, 1); Colorado (Fort Lyon, 2); Nebraska (Gresham, 2); California (Nicasio, 2; Searsville, 1; Los Baños, 2; Pacific Beach, 1); Texas (Waring, 2; Harlingen, 3); Mexico (Sabinas, Coahuila, 1).

**\**Passerculus sandwichensis alaudinus* Bonaparte. BRYANT'S SPARROW.**

*Passerculus alaudinus* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 918, Dec., 1853—California, probably San Francisco (type in Paris Museum); idem, Not. Orn. Coll. Delattre, p. 18, 1854 (reprint); van Rossem, Trans. San Diego Soc. N. H., 7, p. 346, 1933 (crit.).<sup>1</sup>

*Passerculus sandwichensis bryanti* Ridgway, Proc. U. S. Nat. Mus., 7, "1884," p. 157, pub. Feb. 25, 1885—Oakland, California (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 307, 1932); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 197, 1901—part, California (monog.); Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 111, 1930 (range).

*Range*.—Coast of Curry County, Oregon, and coast district of California (Transition and Upper Austral zones) from Humboldt Bay south to Morro Bay, San Luis Obispo County, and east in the San Francisco Bay district to Solano County.

25: California (Eureka, 1; San Francisco, 1; Palo Alto, 1; Pescadero, 3; Berkeley, 1; Oakland, 2; San Gregorio, 1; Hayward, 1; Alameda, 4; Santa Cruz, 1; Los Angeles County, 1; Monterey, 6; Pacific Grove, 2).

***Passerculus sandwichensis brunescens* (Butler).<sup>2</sup> MEXICAN SAVANNAH SPARROW.**

*Amodramus sandwichensis brunescens* Butler, Auk, 5, p. 265, 1888—Valley of Mexico, Mexico (type in coll. of Amos W. Butler, now in the U. S. National Museum).

*Passerculus sandwichensis brunescens* Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, pp. 110, 111, 1930—Mexico (crit., range); Peters and Griscom, Bull. Mus. Comp. Zool., 80, p. 471, 1938 (crit.).

<sup>1</sup> As pointed out by van Rossem, who made a critical study of it some years ago, the type of *P. alaudinus* is a partially albinistic example of Bryant's Sparrow in worn summer plumage. Bonaparte's name, consequently, replaces Ridgway's much later term *bryanti*. Cf. also Peters and Griscom, Bull. Mus. Comp. Zool., 80, p. 473, 1938.

<sup>2</sup> *Passerculus sandwichensis brunescens* (Butler), originally based on winter birds from the Valley of Mexico and united to *P. s. bryanti* [= *alaudinus* Bonaparte] by Ridgway, is, in the opinion of Mr. H. C. Oberholser, a recognizable race. According to this author, it differs from *P. s. nevadensis* [*alaudinus* apud Oberholser] by reason of its thicker bill, longer tail and darker brownish upper parts with heavier black streaking. It is stated to be much like *P. s. anthinus* in large size and dark brownish coloration, but distinguished by thicker bill, darker, more heavily striped upper surface, and less yellow suffusion on the head and superciliary region. Wing (average of males), 71½; tail, 54; bill, 10½.

We have no material.

*Passerculus sandwichensis bryanti* (not of Ridgway, 1885) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 197, 1901—part, Mexico.

*Range*.—Tableland of Mexico and northwestern Guatemala (Huehuetenango).<sup>1</sup>

**\**Passerculus sandwichensis beldingi* Ridgway. BELDING'S SPARROW.**

*Passerculus beldingi* Ridgway, Proc. U. S. Nat. Mus., 7, "1884," p. 516, pub. Feb. 25, 1885—San Diego, California (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 307, 1932); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 198, 1901—southern California and Lower California (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 161, 1928—Lower California.

*Passerculus sandwichensis beldingi* Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, pp. 110, 111, 1930—coast of southern California to northwestern Lower California (crit.).

*Range*.—Salt marshes of southern California (north about to Santa Barbara) and Lower California to Todos Santos Islands and San Quintín Bay.

11: California (Santa Barbara, 2; San Diego, 4; Pacific Beach, 3; Seal Beach, Los Angeles County, 2).

***Passerculus sandwichensis anulus* Huey.<sup>2</sup> SCAMMON LAGOON SPARROW.**

*Passerculus rostratus anulus* Huey, Trans. San Diego Soc. N. H., 6, No. 10, p. 204, Aug. 30, 1930—Scammon Lagoon, Lower California (type in coll. of San Diego Society of Natural History).

*Passerculus sandwichensis anulus* Oberholser, Sci. Publ. Cleveland Mus. N. H., 1, pp. 110, 111, 1930—Lower California (crit.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 219, 1930—Scammon Lagoon, Lower California.

*Passerculus halophilus* (not *Ammodramus halophilus* McGregor) Bancroft, Condor, 29, p. 56, 1927—part, Scammon Lagoon.

*Passerculus rostratus halophilus* Grinnell, Univ. Calif. Pub. Zool., 32, p. 163, 1928—part, Scammon Lagoon.

<sup>1</sup> The Guatemalan birds have recently been separated as *P. s. wetmorei* by van Rossem (Bull. Brit. Orn. Cl., 58, p. 129, July 13, 1938—type, from Hacienda Chancol, in British Museum).

<sup>2</sup> *Passerculus sandwichensis anulus* Huey: In coloration, dorsally, the olive wash is lighter than in either *P. s. beldingi* or *P. s. halophilus*; black markings narrower and more penciled than in either; light emargination of feathers on back as in *beldingi*; bill and general size more nearly like those of *halophilus*; breast, sides, throat, and yellow interorbital stripe the same as in its two allies. In other words, *anulus* is a connecting link between *beldingi* and *halophilus*. Wing (average of ten males), 66½; tail, 45; bill, 12½. (Huey, l.c.)

From van Rossem's remarks (l.c., p. 217) it clearly results that the characters of *P. s. anulus* so completely bridge the gap separating *beldingi* from the *sandwichensis* group that the only logical course is to unite the whole assemblage under one specific name.

*Range*.—Breeds at Scammon Lagoon (east shore of Viscaíno Bay), in the north-central section of the Pacific coast region of Lower California.

***Passerculus sandwichensis halophilus* (McGregor). ABREOJOS SPARROW.**

*Ammodramus halophilus* McGregor, Auk, 15, p. 265, 1898—Abreojos Point, Lower California (type in coll. of R. C. McGregor, now in the Dwight Collection, in the American Museum of Natural History, New York).

*Passerculus rostratus halophilus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 202, 1901—Abreojos Point (monog.); Oberholser, Ohio Journ. Sci., 19, p. 353, 1919—southern half of Lower California (monog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 163, 1928—Lower California (excl. of Scammon Lagoon).

*Passerculus sandwichensis halophilus* van Rossem, Trans. San Diego Soc. N. H., 6, p. 219, 1930 (range).

*Range*.—Pacific coast of Lower California, from Abreojos Point south to Magdalena Bay, straggling south in winter to the Cape Region.

**\**Passerculus sandwichensis sanctorum* Coues.<sup>1</sup> SAN BENITO SPARROW.**

*Passerculus sanctorum* (Coues MS.) Ridgway, Proc. U. S. Nat. Mus., 5, pp. 538, 539, 1883—San Benito Islands, Lower California (nomen nudum); Coues, Key N. Amer. Bds., 2nd ed., p. 364, 1884—San Benito Islands (type in U. S. National Museum).<sup>2</sup>

*Ammodramus* (*Passerculus*) *sanctorum* Coues, Auk, 14, p. 92, 1897—San Benito Islands (crit.).

*Ammodramus sanctorum* McGregor, Osprey, 2, p. 42, 1897—San Benito Islands (habits, nest, and eggs); idem, Auk, 15, p. 264, 1898—San Benito Islands (young descr.).

*Passerculus rostratus sanctorum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 200, 1901—San Benito Islands (monog.); Townsend, Bull. Amer. Mus. N. H., 48, p. 19, 1923—San Benito Islands.

*Passerculus rostratus guttatus* (not of Lawrence) Oberholser, Ohio Journ. Sci., 19, p. 349, 1919—part, San Benito Islands; Grinnell, Univ. Calif. Pub. Zool., 32, p. 163, 1928—part, San Benito Islands.

<sup>1</sup> *Passerculus sandwichensis sanctorum* Coues: Similar to *P. s. rostratus*, but decidedly darker and grayer than even the grayish "variety (*guttatus*)," the streaking below broader and blacker, and the bill more slender.

Van Rossem, who had access to a good series, considers this form to be recognizable, and points out its sedentary habits. No specimen exactly similar has been found outside the San Benito Islands at any season.

<sup>2</sup> It appears to me that Coues should be quoted as the authority for the subspecific name, as there is nothing definite in Ridgway's remarks to enable one to recognize the San Benito bird.

*Passerculus sandwichensis sanctorum* van Rossem, Trans. San Diego Soc. N. H., 6, pp. 217, 219, 1930—San Benito Islands (crit.).

*Range*.—Resident on the San Benito Islands, off Lower California. 8: Lower California (San Benito Islands, 8).

**\**Passerculus sandwichensis rostratus* (Cassin).<sup>1</sup> LARGE-BILLED SPARROW.**

*Emberiza rostrata* Cassin, Proc. Acad. Nat. Sci. Phila., 6, No. 5, Sept.–Oct., p. 184, pub. Dec. 3, 1852—seashore at San Diego, California (type in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 30, 1899, and Grinnell, Univ. Calif. Pub. Zool., 38, p. 307, 1932).

*Passerculus guttatus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 473, May, 1867—San José [del Cabo], Lower California (type in U. S. National Museum); Sharpe, Cat. Bds. Brit. Mus., 12, p. 680, 1888—Cape San Lucas.

*Ammodromus rostratus* Cassin, Ill. Bds. Calif., Texas, etc., p. 226, pl. 38, 1855—California (San Diego, Santa Barbara, San Pedro).

*Passerculus rostratus* Grinnell, Auk, 22, p. 16, 1905 (not breeding in California); van Rossem, Trans. San Diego Soc. N. H., 6, p. 215, 1930 (crit.).

*Passerculus rostratus rostratus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 199, 1901—southern California, Lower California, and Sonora to Guaymas (monog., full bibliog.); Oberholser, Ohio Journ. Sci., 19, p. 346, 1919 (monog.); Townsend, Bull. Amer. Mus. N. H., 48, p. 19, 1923—Tiburón Island; Grinnell, Univ. Calif. Pub. Zool., 32, p. 161, 1928—Lower California.

*Passerculus rostratus guttatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 201, 1901—southern Lower California (monog., full bibliog.); Oberholser, Ohio Journ. Sci., 19, p. 349, 1919—part, Lower California and California (monog.); Townsend, Bull. Amer. Mus. N. H., 48, p. 19, 1923—Lower California (Abreojos Point, Santa Maria Bay, Magdalena Bay); Grinnell, Univ. Calif. Pub. Zool., 32, p. 163, 1928—part, Lower California (excl. of San Benito Islands).

*Ammodramus rostratus* Brewster, Bull. Mus. Comp. Zool., 41, p. 138, 1902—Cape region of Lower California and Sonora (Guaymas).

*Ammodramus rostratus guttatus* Brewster, Bull. Mus. Comp. Zool., 41, p. 139, 1902—Lower California (in part, excl. of *P. r. halophilus*).

*Ammodramus rostratus sanctorum* Brewster, Bull. Mus. Comp. Zool., 41, p. 141, 1902—part, Cape region of Lower California (excl. of San Benito Islands).

*Passerculus sandwichensis rostratus* van Rossem, Trans. San Diego Soc. N. H., 6, p. 219, 1930 (range); idem, l.c., 6, p. 298, 1931—Sonora (El Doctor, mouth of Colorado River, Port Lobos); idem, l.c., 7, p. 145, 1932—Tiburón Island; idem, Bull. Mus. Comp. Zool., 77, p. 484, 1934—Guaymas, Sonora (January).

<sup>1</sup> Van Rossem (Trans. San Diego Soc. N. H., 6, pp. 215-217, 1930), has furnished convincing evidence to show that "*P. guttatus*" is "simply the gray, small-billed manifestation of *rostratus*."

*Range*.—Breeds in the delta of the Colorado River in Lower California and Sonora; winters from Santa Cruz, California, south along both coasts of Lower California to Cape San Lucas and on the coast of Sonora to Guaymas; casual(?) inland as at Yuma, Arizona, and at Mecca and Salton Sea, southeastern California (van Rossem).

16: California (Seal Beach, Los Angeles County, 1; Mecca, Riverside County, 1; San Diego, 3; San Clemente Island, 1); Lower California (La Paz, 5; Cape San Lucas, 1; San José del Cabo, 3; Carmen Island, 1).

***Passerculus sandwichensis atratus* van Rossem.<sup>1</sup> SONORA SPARROW.**

*Passerculus sandwichensis atratus* van Rossem, Trans. San Diego Soc. N. H., 6, p. 218, Nov., 1930—Tóbari Bay, southern Sonora (type in coll. of Donald R. Dickey, Pasadena); idem, l.c., 6, p. 298, 1931—Sonora (Tóbari Bay, Guásimas Lagoon, Kino Bay, and mainland opposite north end of Tiburón Island).

*Range*.—Resident on the coast of central and southern Sonora, from opposite the north end of Tiburón Island and Kino Bay south to Tóbari Bay.

**Genus AMMODRAMUS Swainson**

*Ammodramus* Swainson, Philos. Mag., (n.s.), 1, No. 6, p. 435, June, 1827—type, by monotypy, *Ammodramus bimaculatus* Swainson (cf. Oberholser, Smiths. Misc. Coll., 48, p. 67, 1905).

*Coturniculus* Bonaparte, Geog. & Comp. List, p. 32, 1838—type, by subs. desig. (Gray, List Gen. Bds., p. 46, 1840), *Fringilla passerina* Wilson.

*Centronyx* Baird, Rep. Pacif. R. R. Surv., 9, p. 440, 1858—type, by monotypy, *Emberiza bairdii* Audubon.<sup>2</sup>

*Ammodromus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 683, 1888—emendation of *Ammodramus* Swainson.

<sup>1</sup> *Passerculus sandwichensis atratus* van Rossem: Nearest to *P. s. rostratus*, in size equal to, or even larger than that race, but with an even larger and more tumid bill. In coloration very much darker (sometimes almost brownish black dorsally) both above and as regards the streaking below; the ventral streaking denser and wider; the superciliaries and pale markings on the head narrower, sometimes almost obsolete, and grayish or creamy white instead of, as in all other races, tinged or strongly suffused with yellow. Wing (breeding male), 71; tail, 55; bill, 14.

This form, which we have not seen, appears to be a very well-marked one.

<sup>2</sup> Oberholser (Proc. Biol. Soc. Wash., 32, p. 141, 1919) claims generic distinction for this species. However, I am rather in agreement with the authors of the A. O. U. Check List that the slight structural divergencies hardly warrant this procedure.

**\**Ammodramus savannarum caribaeus* (Hartert).<sup>1</sup> CARIBBEAN GRASSHOPPER SPARROW.**

*Coturniculus savannarum caribaeus* Hartert, Nov. Zool., 9, p. 298, 1902—Bonaire Island, Dutch West Indies (type in coll. of W. L. Rothschild, now in the American Museum of Natural History, New York).

*Ammodramus savannarum caribaeus* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 208, 213, 254, 1909—Curaçao and Bonaire.

*Ammodramus savannarum* (not *Fringilla savannarum* Gmelin) Hartert, Bull. Brit. Orn. Cl., 1, p. xii, 1892—Bonaire and Curaçao.

*Ammodromus savannarum* Hartert, Ibis, 1893, pp. 314, 327—Curaçao (near Beckenburg) and Bonaire (near Kralendijk).

*Coturniculus savannarum savannarum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 206, 1901—part, Curaçao and Bonaire.

*Range*.—Islands of Curaçao and Bonaire, off Venezuela, in the Caribbean Sea.

1: Bonaire, 1.

**\**Ammodramus savannarum savannarum* (Gmelin). JAMAICAN GRASSHOPPER SPARROW.**

*Fringilla savannarum* Gmelin, Syst. Nat., 1, (2), p. 921, 1789—based on "Savanna Bird" Sloane, Nat. Hist. Jam., 2, p. 306, pl. 259, fig. 5; Jamaica.

*Coturniculus tixicrus* Gosse, Bds. Jamaica, p. 242, 1847—Jamaica (type in British Museum); idem, Illustr. Bds. Jamaica, pl. 60, 1849; Sclater, Proc. Zool. Soc. Lond., 1861, p. 74—Freeman's Hall and Santa Cruz Mountains, Jamaica; idem, Cat. Coll. Amer. Bds., p. 116, 1862—Jamaica.

*Coturniculus lizicrus* [sic] Bonaparte, Consp. Gen. Av., 1, (2), p. 481, 1850—Jamaica (ex Gosse).

*Coturniculus passerinus* (not *Fringilla passerina* Wilson) March, Proc. Acad. Nat. Sci. Phila., 1863, p. 298—near Spanish Town (habits, nest, and eggs); Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 1, p. 553, 1874—part, Jamaica; Cory, List Bds. W. Ind., p. 13, 1885—part, Jamaica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 384, 1886—part, Jamaica.

*Ammodramus savannarum* (not *Fringilla savannarum* Gmelin) Cory, Auk, 3, p. 212, 1886—part, Jamaica; idem, Bds. W. Ind., p. 99, 1889—part, Jamaica; idem, Cat. W. Ind. Bds., p. 112, 1892—part, Jamaica; Scott, Auk, 10, p. 179, 1893—near Constant Springs Hotel, Jamaica.

*Ammodromus savannarum* Sharpe, Cat. Bds. Brit. Mus., 12, p. 687, 1888—part, spec. z-g', Jamaica.

*Coturniculus savannarum savannarum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 206, 1901—part, Jamaica.

<sup>1</sup> *Ammodramus savannarum caribaeus* (Hartert): Very similar to *A. s. savannarum*, of Jamaica, but smaller, with shorter, slenderer bill, and the lateral crown-stripes more of a brownish, less blackish hue. Wing, 56–58; tail, 41–43; bill, 9½–10.

*Additional material examined*.—Bonaire, 4.

*Ammodramus savannarum savannarum* Danforth, Auk, 45, p. 491, 1928—near Kingston, Jacksontown, and Brown's Town.

*Range*.—Island of Jamaica, Greater Antilles.<sup>1</sup>

2: Jamaica (Kingston, 2).

**\**Ammodramus savannarum borinquensis* Peters.<sup>2</sup> PORTO RICO GRASSHOPPER SPARROW.**

*Ammodramus savannarum borinquensis* Peters, Proc. Biol. Soc. Wash., 30, p. 95, 1917—Cabo Rojo, Porto Rico (type in Museum of Comparative Zoology, Cambridge, Mass.); Danforth, Journ. Dept. Agr. Porto Rico, 10, p. 105, 1926—Cartagena and Guanica lagoons; Wetmore, Sci. Surv. Porto Rico & Virgin Islands, 9, p. 560, 1927—Porto Rico (monog., habits); Danforth, Journ. Dept. Agric. Porto Rico, 15, p. 105, 1931—Porto Rico.

*Fringilla passerina* (not of Wilson) Bryant, Proc. Bost. Soc. N. H., 10, p. 254, 1866—Porto Rico.

*Fringilla (Coturniculus) passerina* Sundevall, Ofvers. Vetensk.-Akad. Handl. Stockholm, 26, p. 597, 1869—Porto Rico.

*Coturniculus passerinus* Gundlach, Journ. Orn., 22, p. 311, 1874—Porto Rico; idem, l.c., 26, pp. 160, 173, 1878—Bayamón (July); idem, Anal. Soc. Esp. Hist. Nat., 7, p. 203, 1878—Porto Rico; Cory, List Bds. W. Ind., p. 13, 1885—part, Porto Rico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 384, 1886—part, Porto Rico.

*Ammodramus savannarum* (not *Fringilla savannarum* Gmelin) Cory, Auk, 3, p. 212, 1886—part, Porto Rico; idem, Bds. W. Ind., p. 99, 1889—part, Porto Rico; idem, Cat. W. Ind. Bds., p. 112, 1892—part, Porto Rico; Bowditch, Auk, 20, p. 13, 1903—San Juan, Aguadilla, and Mayagüez (nest).

*Ammodromus savannarum* Sharpe, Cat. Bds. Brit. Mus., 12, p. 687, 1888—part, spec. y, Porto Rico.

*Coturniculus savannarum savannarum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 206, 1901—part, Porto Rico.

*Coturniculus savannarum intricatus* (not *Ammodramus s. intricatus* Hartert) Wetmore, Bull. U. S. Dept. Agric., 326, p. 127, 1916—Porto Rico (food, habits); Struthers, Auk, 40, p. 478, 1923—Manatí.

*Range*.—Island of Porto Rico, Greater Antilles (resident).

2: Porto Rico (unspecified, 2).

<sup>1</sup> Eight specimens from Jamaica examined.

<sup>2</sup> *Ammodramus savannarum borinquensis* Peters: Similar to *A. s. savannarum*, but on average smaller; median crown stripe, edgings of interscapulars, inner secondaries, and upper tail coverts deeper in tone, warm buff rather than light buff; sides of head, pectoral zone, flanks, and under tail coverts darker, between cinnamon buff and clay color. Wing, 57–58, (female) 55; tail, 44–47; bill, 12. (After J. L. Peters.)

A single unsexed adult from Porto Rico is very similar to Jamaican birds, but has more buffy upper tail coverts.

***Ammodramus savannarum intricatus* Hartert.<sup>1</sup> DOMINICAN GRASSHOPPER SPARROW.**

*Ammodramus savannarum intricatus* Hartert, Bull. Brit. Orn. Cl., 19, p. 73, April 29, 1907—El Valle, Dominican Republic (type in Tring Collection, now in the American Museum of Natural History, New York); Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 362, 1909—El Valle; Peters, Bull. Mus. Comp. Zool., 61, p. 426, 1917—Arroyo Savanna, Dominican Republic; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 519, 1928—St. Michel, Haiti; Danforth, Auk, 46, p. 375, 1929—Hato Mayor; Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 326, 1929—San Juan de Maguana, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 443, 1931—Hispaniola (monog.); Wetmore and Lincoln, Proc. U. S. Nat. Mus., 82, art. 25, p. 68, 1933—west of San Juan, Dominican Republic, and Las Cahobes, Haiti.

*Range*.—Island of Hispaniola, Greater Antilles (resident).

***Ammodramus savannarum floridanus* (Mearns).<sup>2</sup> FLORIDA GRASSHOPPER SPARROW.**

*Coturniculus savannarum floridanus* Mearns, Proc. U. S. Nat. Mus., 24, p. 915, Oct. 3, 1902—Kissimmee Prairie, seven miles east of Alligator Bluff, Osceola County, Florida (type in U. S. National Museum).

*Ammodramus savannarum floridanus* Baynard, Auk, 30, p. 246, 1913—Paines Prairie, Alachua County, Florida (June).

*Range*.—Breeds in central Florida, in Osceola and Alachua counties.

**\**Ammodramus savannarum pratensis* (Vieillot). EASTERN GRASSHOPPER SPARROW.**

*Fringilla passerina* (not of Bechstein, 1798) Wilson, Amer. Orn., 3, p. 76, pl. 24, fig. 5, 1811—lower parts of New York and Pennsylvania (type in Peale's Museum, No. 6585, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 382, 1930).

*Passerina pratensis* Vieillot,<sup>3</sup> Nouv. Dict. Hist. Nat., nouv. éd., 25, p. 24, 1817—New York; idem, Tabl. Enc. Méth., Orn., livr. 93, p. 937, 1823—New York.

<sup>1</sup> *Ammodramus savannarum intricatus* Hartert: Similar to *A. s. savannarum* and *A. s. borinquensis*, but with somewhat stouter bill and more blackish upper parts. Wing, 56–59, (female) 53–56; tail, 41–46, (female) 39–40; bill, 12–13.

Two specimens from El Valle examined. By the blackish dorsal surface, this form seems to approach *A. s. floridanus*, but is evidently smaller and darker underneath. Direct comparison of the two races, however, may reveal other differences.

<sup>2</sup> *Ammodramus savannarum floridanus* (Mearns): Similar to *A. s. pratensis*, but smaller, with larger bill, longer tarsus, and much darker colored above and paler below; chestnut of upper surface much reduced and largely replaced by black; lateral dark crown stripes almost solid black. Differs from *A. s. savannarum* and *A. s. borinquensis* by much darker coloration above and much less ochraceous under parts. Wing, 63, (female) 61; tail, 49; bill, 12.

The breeding range of this form is imperfectly known and needs further investigation.

<sup>3</sup> Vieillot, whose name has been entirely overlooked, gives an excellent description of the Eastern Grasshopper Sparrow.



*Ammodromus australis* Maynard, Amer. Exch. and Mart, 3, No. 3, p. 33, Jan. 15, 1887; idem, l.c., No. 6, p. 69, Feb. 5, 1887—Nassau, New Providence, Bahamas (type in coll. of C. J. Maynard, subsequently in coll. of Gerrit S. Miller,<sup>1</sup> now in British Museum, examined).

*Ammodromus savannarum* (not *Fringilla savannarum* Gmelin) Sharpe, Cat. Bds. Brit. Mus., 12, p. 687, 1888—part, eastern North America.

*Coturniculus savannarum passerinus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 207, 1901 (monog., full bibliog.); Bangs and Peck, Proc. Biol. Soc. Wash., 21, p. 46, 1908—Toledo District, British Honduras (Dec.).

*Ammodramus savannarum australis* Phillips, Auk, 28, p. 88, 1911—Alta Mira and Galindo, Tamaulipas; Barbour, Mem. Nutt. Orn. Cl., 6, p. 128, 1923—Cuba; Griscom, Bull. Amer. Mus. N. H., 64, p. 358, 1932—Chichicastenango and Nebaj, Guatemala; idem, Bull. Mus. Comp. Zool., 75, p. 417, 1934—Chilpancingo, Guerrero (Nov. to March).

*Range*.—Breeds in Austral zones (sporadically in Transition) east of the Great Plains from southern Wisconsin, southern Ontario, and southern New Hampshire south to southern Louisiana, central Alabama, northern Georgia, and northern South Carolina; winters from Illinois and North Carolina south to the Bahamas, Cuba, Cozumel Island, Yucatan, Guerrero, British Honduras, and western Guatemala.<sup>2</sup>

58: New York (Shelter Island, 4); Massachusetts (Newtonville, 1); Connecticut (Bloomfield, 2; New Haven, 1); New Jersey (Princeton, 1); Wisconsin (Beaver Dam, 5; Milton, 2); Illinois (Oregon, Ogle County, 1; Chicago, 4; Homewood, 5; Warsaw, 1; Lewistown, 1; Olive Branch, 1); Indiana (Bluffton, 1; Liverpool, 1); North Carolina (Raleigh, 1); Florida (Nassau County, 3; Gainesville, 6; Rosewood, 1; Miami Beach, 6; Key West, 2; Eau Gallie, 1); Bahamas (Nassau, 3; Bimini, 2; unspecified, 1); Cuba (near Palacios, 1).

**\**Ammodramus savannarum perpallidus* (Coues). WESTERN GRASSHOPPER SPARROW.**

[*Coturniculus passerinus*] var. *perpallidus* (Ridgway, MS.) Coues, Key N. Amer. Bds., p. 137 (in text), Oct., 1872—"dry western regions" (type, from Antelope Island, Great Salt Lake, Utah, in U. S. National Museum; cf. Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 211, footnote, 1901).

*Ammodromus savannarum* (not *Fringilla savannarum* Gmelin) Sharpe, Cat. Bds. Brit. Mus., 12, p. 687, 1888—part, western United States.

<sup>1</sup> Cf. Mearns, Proc. U. S. Nat. Mus., 24, p. 916 (in text), 1902.

<sup>2</sup> Western Guatemala seems to constitute the southern limit of its winter range. Records from Costa Rica pertain most probably to the resident breeding race (*A. s. bimaculatus*).

*Coturniculus savannarum bimaculatus* (not *Ammodramus bimaculatus* Swainson)  
Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 209, 1901 (monog., full bibliog.).

*Ammodramus savannarum bimaculatus* Brewster, Bull. Mus. Comp. Zool., 41, p. 142, 1902—San José del Cabo and Triunfo, Cape region, Lower California; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 116, 1907—Patulúl, Guatemala; Grinnell, Univ. Calif. Pub. Zool., 32, p. 164, 1928—Cape district, Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 298, 1931—Sonora (Obregón, Tésia, Chinobampo, Guirocoba); Griscom, Bull. Amer. Mus. N. H., 64, p. 359, 1932—Guatemala (Sacapulas, Momostenango, Chanquejelve, Ocos); idem, Bull. Mus. Comp. Zool., 75, p. 417, 1934—Chilpancingo, Guerrero (Nov. to March).

*Ammodramus savannarum perpallidus* van Rossem, Trans. San Diego Soc. N. H., 7, p. 360, 1934 (crit.); idem, Bull. Mus. Comp. Zool., 77, p. 484, 1934—Sonora (Alamos) and Chihuahua.

*Range*.—Breeds in the Transition and Austral zones from southeastern British Columbia, northwestern Montana, North Dakota, and southern Minnesota south to southern California and southern Texas; winters from central California and southern Texas south to Cape San Lucas, Lower California, Mexico, and Guatemala.

27: Texas (Ingram, 1; Port O'Connor, 1; Corpus Christi, 19; Harlingen, 1); Arizona (Crittenden, 1); Mexico (Bustillos, Chihuahua, 1; Iguala, Guerrero, 1); Guatemala (Patulúl, Sololá, 2).

**\**Ammodramus savannarum bimaculatus* Swainson. SWAINSON'S GRASSHOPPER SPARROW.**

*Ammodramus bimaculatus* Swainson, Philos. Mag., (n.s.), 1, No. 6, p. 435, June, 1827—Temiscaletepec, Mexico (type, now in University Museum, Cambridge, Eng., examined); van Rossem, Trans. San Diego Soc. N. H., 7, p. 359, 1934 (crit. note on type).<sup>1</sup>

*Ammodramus savannarum obscurus* Nelson, Auk, 14, p. 61, 1897—Minatitlan, Vera Cruz, Mexico (type in U. S. National Museum).

*Coturniculus savannarum obscurus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 209, 1901—part, descr. of male, Vera Cruz (Minatitlan) to Chiapas (Palenque); Carriker, Ann. Carnegie Mus., 6, p. 910, 1910—Tenorio and Miravalles, Guanacaste, Costa Rica (May 25 to June 23; crit.).

*Coturniculus passerinus* (not *Fringilla passerina* Wilson) Cabanis, Journ. Orn., 8, p. 411, 1860—Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 103, 1868—Costa Rica (ex Cabanis); Frantzius, Journ. Orn., 17, p. 301, 1869—San Isidro and Guadalupe (northeast of San José), Costa

<sup>1</sup> The type of *A. bimaculatus* in the Cambridge Museum agrees with breeding specimens from Oaxaca and Chiapas (*obscurus*), as has been shown by van Rossem. Years ago, when examining the type, we had come to the same conclusion, but the fact remained unpublished in our notes. Our measurements of Swainson's type read as follows: Wing, 55; tail, 40; bill, 12½.

Six additional specimens examined.

Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 384, 1886—part, Mexico (Oaxaca) and Costa Rica (San Isidro); Underwood, Ibis, 1896, p. 436—Miravalles, Costa Rica.

*Coturniculus savannarum bimaculatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 209, 1901—part, Costa Rica.

*Range*.—Breeding and resident in southern Mexico, in states of Mexico (Temascaltepec), Vera Cruz (Minatitlan), Oaxaca (Oaxaca City, Sola), and Chiapas (Palenque, Rio Blanco, Jitotal), and in Costa Rica (Tenorio and Miravalles, Guanacaste; San Isidro de San José, and Guadalupe, near San José).<sup>1</sup>

10: Nicaragua (San Gerónimo, Chinandega, 1); Costa Rica (Miravalles, 1; Orósi, 8).

***Ammodramus savannarum cracens* (Bangs and Peck).<sup>2</sup> GUATEMALAN GRASSHOPPER SPARROW.**

*Coturniculus savannarum cracens* Bangs and Peck, Proc. Biol. Soc. Wash., 21, p. 45, Feb. 29, 1908—Ycacos Lagoon, British Honduras (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 382, 1930).

*Coturniculus passerinus* (not *Fringilla passerina* Wilson) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 384, 1886—part, Sakluk (Petén), Guatemala.

*Ammodromus savannarum* (not *Fringilla savannarum* Gmelin) Sharpe, Cat. Bds. Brit. Mus., 12, p. 687, 1888—part, spec. t, Sakluk, Guatemala.

*Ammodramus savannarum bimaculatus* (not of Swainson) Griscom, Bull. Amer. Mus. N. H., 64, p. 359, 1934—part, Petén.

*Ammodramus savannarum cracens* van Tyne, Univ. Mich. Mus. Zool., Misc. Publ., 27, p. 40, 1935—La Libertad, Petén, Guatemala (Sept.); Griscom, Ibis, 1935, p. 553—eastern Guatemala (Sakluk, Petén; Sierra de las Minas); idem, Ibis, 1935, p. 810—Sierra de las Minas, Guatemala.

*Range*.—Breeding and resident in British Honduras and northern Guatemala (Sakluk and La Libertad, Petén; Sierra de las Minas, Zacapa).

<sup>1</sup> Costa Rican specimens, which we have not seen, are stated by Todd to be referable to the Mexican form (*bimaculatus*), differing merely by slightly larger size. While the only recorded breeding places of this form are in southern Mexico and northwestern Costa Rica, respectively, its range may be supposed to extend uninterruptedly along the Pacific slope of Central America, though more information about its exact distribution and relationship to *A. s. cracens* is very desirable.

<sup>2</sup> *Ammodramus savannarum cracens* (Bangs and Peck): Most like *A. s. bimaculatus*, but decidedly smaller and colors darker, the upper parts with dusky greatly predominating and with scarcely any rusty-brown mottling; chest, sides, and flanks darker, dull tawny-ochraceous. Wing, 53, (female) 50–52; tail, 35–38; bill, 9–10.

This form, with which we are not acquainted, has recently been traced to northern Guatemala. We have since examined two skins from British Honduras, (Southern Pine ridge) and six from Guatemala (Sakluk and Sierra de la Minas).

***Ammodramus savannarum caucae* Chapman.<sup>1</sup> CAUCA GRASS-HOPPER SPARROW.**

*Ammodramus savannarum caucae* Chapman, Bull. Amer. Mus. N. H., 31, p. 161, June, 1912—Cali, Cauca, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 566, 1917—Cali; Ménégau, Rev. Franç. d'Orn., 3, p. 87, 1913—"Quito," Ecuador; idem, Bull. Mus. Hist. Nat. Paris, 19, p. 148, 1913—"Quito" (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 624, 1926—"Quito" (ex Ménégau).

(?) *Ammodramus* cf. *peruanus* (not *Coturniculus peruanus* Bonaparte) Hartert, Nov. Zool., 5, p. 485, 1898—Cayambé (alt. 9,300 ft.), Ecuador (one young).

*Coturniculus savannarum passerinus* (not *Fringilla passerina* Wilson) Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B79, 1911—"Quito," Ecuador (crit.).

**Range.**—Tropical and Subtropical zones of western Colombia (Cali, Valle de Cauca) and Ecuador.

**\**Ammodramus bairdii* (Audubon). BAIRD'S SPARROW.**

*Emberiza bairdii* Audubon, Birds Amer., 8vo ed., 7, p. 359, pl. 500, 1844—"Prairie of the upper Missouri"—Old Fort Union, North Dakota (cotypes in U. S. National Museum and the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 18, 1899).

*Centronyx ochrocephalus* Aiken, Amer. Nat., 7, p. 237, April, 1873—El Paso County, Colorado (type in coll. of C. E. Aiken); Scott, l.c., p. 564, 1873 (crit.; type stated to be in U. S. National Museum).

*Centronyx bairdii* Ridgway, Bull. Essex Inst., 5, p. 190, Nov., 1873—El Paso, Colorado (crit.); Coues, Amer. Nat., 7, p. 696, 1873—along the northern border of Dakota between the Pembina and Turtle Mountains (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 203, 1901 (monog., full bibliog.).

*Passerculus bairdi* Sharpe, Cat. Bds. Brit. Mus., 12, p. 681, 1888 (monog.).

**Range.**—Breeds mainly in the Transition zone of North America from southwestern Saskatchewan and central Manitoba to central Montana, North Dakota, and northwestern Minnesota; migrates through Arizona and New Mexico and winters from Texas to northwestern Mexico; accidental on Long Island, New York.

<sup>1</sup> *Ammodramus savannarum caucae* Chapman: Very similar to *A. s. bimaculatus*, but decidedly larger and coloration paler; the grayish margins to the feathers of the dorsal plumage wider; the chest paler buffy; flanks just faintly tinged with buff. Wing (unsexed adult), 61; tail, 48; bill, 12.

The only example seen is the adult bird from Ecuador discussed by Ménégau. It is a skin of the typical "Quito" preparation, and corresponds admirably to Chapman's diagnosis. Compared with *A. s. perpallidus*, of Arizona, and *A. s. savannarum*, of Jamaica, it has the chestnut brown areas above more restricted and the marginal edges grayish rather than buffy. Comparison with *A. s. caribaeus* and *A. s. cracens* was not possible.

There is little doubt that the young specimen from Cayambé, Ecuador, doubtfully referred by Hartert to "*A. peruanus*," belongs to the present form.

4: Saskatchewan (Lake Johnston, Moose Jaw, 1); North Dakota (Carrington, 1; Souris River, 2).

Genus **PASSERHERBULUS** Stone

*Passerherbulus*<sup>1</sup> Stone, Auk, 24, p. 193, 1907—type, by orig. desig., *Emberiza leconteii* Audubon=*Fringilla caudacuta* Latham.

*Nemospiza* Oberholser, Ohio Journ. Sci., 17, No. 8, p. 335, June, 1917—type, by orig. desig., *Emberiza henslowii* Audubon.<sup>2</sup>

\***Passerherbulus caudacutus** (Latham). **LECONTE'S SPARROW.**

*Fringilla caudacuta* Latham, Ind. Orn., 1, p. 459, 1790—interior of Georgia (location of type not stated); Ridgway, Auk, 14, p. 320, 1897 (crit.).

*Emberiza leconteii* Audubon, Bds. Amer., 8vo ed., 7, p. 338, pl. 488, 1843—prairies of the Upper Missouri River (type lost).

*Ammodromus lecontei* Sharpe, Cat. Bds. Brit. Mus., 12, p. 695, 1888 (monog.).

*Ammodramus leconteii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 224, 1901 (monog., full bibliog.); Peabody, Auk, 18, p. 129, pl. 3, 1901—Red River Valley, Minnesota (nesting habits).

*Passerherbulus leconteii* Oberholser, Ohio Journ. Sci., 17, p. 335, 1917 (crit.).

*Passerherbulus caudacutus* Oberholser, Proc. Biol. Soc. Wash., 32, p. 47, 1919 (nomencl.).

*Range*.—Breeds in the Canadian and Transition zones of North America from Great Slave Lake, Mackenzie, southern Saskatchewan, and Manitoba south to North Dakota and southern Minnesota; winters from southern Kansas, southern Missouri, and western Tennessee to Texas, Florida, and the coast of South Carolina; occasionally to North Carolina.

15: Saskatchewan (Prince Albert, 1); North Dakota (Oakes, 1); Minnesota (Kinbrae, 1); Wisconsin (Lake Koshkonong, 2); Illinois (Chicago, 1; Chicago Ridge, 1; Worth, 2); Kansas (Hamilton, 2); Iowa (Colo, Story County, 1); Texas (Gainesville, 1); Florida (Rosewood, 2).

\***Passerherbulus henslowii** (Audubon). **HENSLOW'S SPARROW.**

*Emberiza henslowii* Audubon, Bds. Amer. (folio), 1, pl. 70, 1829; idem, Orn. Biog., 1, p. 360, 1831—opposite Cincinnati, in the State of Kentucky (type lost).

*Ammodramus henslowii occidentalis* Brewster, Auk, 8, p. 145, 1891—Moody County, South Dakota (type in coll. of W. Brewster, now in Museum of

<sup>1</sup> First proposed by Maynard (Bds. East. N. Amer., 2nd ed., Part 40, p. 707, 1895), but invalid under the Rules, as the type species is indicated only with the vernacular name "Leconte's Bunting."

<sup>2</sup> While admitting that the species presents certain structural divergencies, such as the stouter bill and shorter first primary, it is in other respects closely similar to *P. caudacutus*, and generic separation would merely serve to obscure its natural affinities. Cf. also Todd and Worthington, Wils. Bull., 38, p. 218, 1926.

Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 383, 1930); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 228, 1901—South Dakota.

*Passerherbulus henslowii susurrans* Brewster, Proc. New Engl. Zool. Cl., **6**, p. 78, Feb. 6, 1918—Falls Church, Fairfax County, Virginia (type in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 383, 1930).

*Ammodromus henslowi* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 690, 1888 (monog.).

*Ammodramus henslowii henslowii* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 226, 1901 (monog., full bibliog.).

*Nemospiza henslowii* Oberholser, Ohio Journ. Sci., **17**, p. 335, 1917.

*Passerherbulus henslowi* Todd and Worthington, Wils. Bull., **38**, p. 217, 1926—Choctawhatchee Bay, Florida (crit.).

**Range.**—Breeds in North America from South Dakota, Ontario, New York, and southern New Hampshire south to northern Virginia and northern Texas; winters from Texas to Florida.<sup>1</sup>

28: South Dakota (Edmunds County, 1); Wisconsin (Beaver Dam, 12; Rock County, 1; Delavan, 1); Illinois (Beach, Lake County, 1; Chicago, 2; Worth, 1; Joliet, 1; Momence, 2); Indiana (Liverpool, 3); Georgia (Sapelo Island, 2); Florida (Rosewood, 1).

### Genus *XENOSPIZA* Bangs<sup>2</sup>

*Xenospiza* Bangs, Proc. New Engl. Zool. Cl., **12**, p. 86, Sept. 1, 1931—type, by orig. desig., *Xenospiza baileyi* Bangs.

### *Xenospiza baileyi* Bangs.<sup>3</sup> BAILEY'S SPARROW.

*Xenospiza baileyi* Bangs, Proc. New Engl. Zool. Cl., **12**, p. 87, Sept. 1, 1931—Bolaños, Jalisco, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

<sup>1</sup> Messrs. Todd and Worthington claim subdivision of Henslow's Sparrow to be impracticable, and judging from the material we have seen their conclusions seem to be well founded.

<sup>2</sup> *Xenospiza* Bangs: "Bill slender, very similar to *Passerherbulus caudacutus*, culmen to base of forehead 12 mm., exposed culmen 11 mm. Wing short, much rounded, the distance from end of secondaries to tip, 8 mm.; second, third, fourth, and fifth primaries subequal and longest; first primary equal to sixth; the secondaries very broad, with very blunt ends; tail relatively long, slightly graduated, the rectrices broad and rounded at tips.

In general appearance, this curious little bird resembles both *Melospiza*, as represented by *M. lincolni*, and *Passerherbulus*, as represented by *P. caudacutus*. From *M. lincolni* it differs by slightly more slender and smaller bill, and conspicuously by the much broader secondaries and by the plumage of the upper parts being composed of long, loose, particolored feathers, somewhat similar to those of *P. caudacutus* and quite different from the close plumage of *M. lincolni*. From *P. caudacutus*, which it resembles in slender bill and texture of dorsal plumage, it differs readily by the broad, rounded rectrices. Its longer tail and narrow bill distinguish it from *Ammodramus* (according to Bangs).

<sup>3</sup> *Xenospiza baileyi* Bangs: "Upper parts much varied; crown with an ill-defined gray mesial streak; sides of crown striped with chestnut and black; below

*Range.*—Marshes in the mountains of western Mexico (thirty miles southwest of Durango, Durango; Bolaños, Jalisco).

### Genus **AMMOSPIZA** Oberholser

*Ammodramus* Swainson (not of Swainson, June, 1827), Zool. Journ., 3, No. 11, p. 348, Sept.–Dec. 31, 1827—type, by orig. desig., *Fringilla caudacuta* Wilson=*Oriolus caudacutus* Gmelin.

*Ammospiza* Oberholser, Smiths. Misc. Coll., 48, p. 68, May 13, 1905—new name for *Ammodramus* Swainson, Dec., 1827, preoccupied.

*Thryospiza* Oberholser, Ohio Journ. Sci., 17, p. 332, June, 1917—type, by orig. desig., *Fringilla maritima* Wilson.<sup>1</sup>

### \**Ammospiza caudacuta subvirgata* (Dwight). ACADIAN SHARP-TAILED SPARROW.

*Ammodramus caudacutus subvirgatus* Dwight, Auk, 4, p. 233, July, 1887—Hillsborough, Albert County, New Brunswick (type in coll. of J. Dwight, Jr., now in the American Museum of Natural History, New York); idem, Auk, 13, pp. 273, 276, pl. 4, 1896 (crit., range); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 223, 1901 (monog., full bibliog.).

*Ammodramus nelsoni subvirgatus* Macoun and Macoun, Cat. Canad. Bds., p. 507, 1909—maritime provinces of Canada (nest and eggs descr.).

*Passerherbulus nelsoni subvirgatus* Lewis, Auk, 37, p. 587, 1920—Yarmouth Harbor, Yarmouth, Nova Scotia (nest, young, habits); Norton, Auk, 44, p. 568, 1927—Phippsburg, Maine (habits, nest, and eggs descr.).

*Ammospiza caudacuta subvirgata* Wetmore and Lincoln, Auk, 49, p. 231, 1932—Cornfield Harbor and Ocean City, Maryland.

*Range.*—Breeds in salt marshes of the Atlantic coast of North America from southeastern Quebec, Prince Edward Island, and

this, over the eye, on sides of head, lores, and behind the eye the color is plain dull grayish; auriculars dusky with pale shaft-streaks; on sides of neck behind ear coverts a cream-colored patch; feathers of back and rump, together with the scapulars, chestnut basally with broad, tear-shaped, central markings towards the ends and widely fringed towards the tips with buffy grayish; lesser wing coverts pale chestnut; greater wing coverts and secondaries with chestnut outer edges basally, with black centers, and with marginal ends and tips of grayish white; primaries dusky, edged with dull grayish buff; carpal edge yellow; under wing coverts buffy white; tail dusky, the rectrices fringed with grayish buff; under parts mostly white; a series of black malar spots forming a stripe; chest and upper sides striped and spotted with black; lower sides and under tail coverts buffy, striped with black; throat, breast, and middle of belly unspotted white; feet and tarsus (in dried skin) yellowish. Wing (male), 62–63; tail, 52–53; tarsus, 19–20; bill, 12 mm.

“The color and pattern of the under parts are quite the same as in *Passerculus s. savanna*, except that the under tail coverts are brown with black streaks, not white; but its relatively long tail and short wing separate it easily from the Savannah Sparrow group.” (Bangs, l.c.)

We have lately examined in the British Museum seven skins of this interesting bird from the Sierra Bolaños, Jalisco.

<sup>1</sup> The structural divergencies of the Seaside Sparrows seem to me good specific characters, but hardly warrant generic segregation.

Cape Breton Island south to Penobscot Bay, Maine; winters on the coasts of South Carolina, Georgia, and northwestern Florida.

17: Massachusetts (Cambridge, 2; Revere Beach, Lynn, 1); Connecticut (Lyme, 10); South Carolina (Charleston, 2; Mount Pleasant, 1); Florida (Nassau County, 1).

**\**Ammospiza caudacuta caudacuta* (Gmelin). SHARP-TAILED SPARROW.**

*Oriolus caudacutus* Gmelin, Syst. Nat., 1, (1), p. 394, 1788—based on "Sharp-tailed Oriole" Latham, Gen. Syn. Bds., 1, (2), p. 448, pl. 17; New York (type in coll. of Mrs. Blackburn).

*Fringilla littoralis* Nuttall, Man. Orn. U. S. and Canada, 1, p. 504, 1832—new name for *Oriolus caudacutus* Latham (ex Gmelin).

*Ammodramus caudacutus* Dwight, Auk, 13, pp. 273, 275, 1896 (in part).

*Ammodramus caudacutus caudacutus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 220, 1901 (monog., full bibliog., in part).

*Ammospiza caudacuta caudacuta* Wetmore and Lincoln, Auk, 49, p. 231, 1932—coast of Maryland (Sept. to April).

*Range*.—Breeds in salt marshes of the Atlantic coast of the United States from New Hampshire to New Jersey; winters from New Jersey to Florida.

46: New York (Piermont, 5; Napeague Harbor, 1; Orient, Long Island, 3; Long Island, 8; Shelter Island, 2); Massachusetts (Monomoy Island, 1; Revere Beach, 2); Connecticut (Lyme, 18); South Carolina (Charleston, 1); Georgia (St. Mary's, 1; McIntosh County, 1); Florida (Nassau County, 3).

***Ammospiza caudacuta diversa* (Bishop).<sup>1</sup> SOUTHERN SHARP-TAILED SPARROW.**

*Ammodramus caudacutus diversus* Bishop, Auk, 18, p. 269, July, 1901—Wanchese, Roanoke Island, North Carolina (type in coll. of L. B. Bishop).

*Ammospiza caudacuta diversa* Oberholser, Auk, 48, p. 610, 1931 (crit., range); Wetmore and Lincoln, Auk, 49, p. 231, 1932—Maryland (Ocean City, Chesapeake Bay, Cornfield Harbor).

*Ammodramus caudacutus* (not *Oriolus caudacutus* Gmelin) Dwight, Auk, 13, pp. 273, 275, 1896—part, South Carolina.

<sup>1</sup> *Ammospiza caudacuta diversa* (Bishop): "Differs from *A. c. caudacuta* in darker, more rufescent upper parts, the colors of which are more contrasted, the blackish areas more intense, and the superciliary stripe more richly rufescent; separable from *A. c. nelsoni* by decidedly larger size, duller (less rufescent) upper parts, and much more heavily streaked jugulum and sides of the body." According to Oberholser, from whose account the above characters are taken, this is the breeding race of the Atlantic coast from Maryland to North Carolina. Its distinctness is also admitted by Wetmore and Lincoln, who collected it during the



*Ammodramus caudacutus caudacutus* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 220, 1901 (monog., full bibliog., in part).

*Range*.—Breeds in salt marshes of the Atlantic coast of the United States from Maryland to North Carolina; winters from North Carolina to Florida.

**\**Ammospiza caudacuta nelsoni* (Allen).<sup>1</sup> NELSON'S SHARP-TAILED SPARROW.**

*Ammodramus caudacutus* var. *nelsoni* Allen, Proc. Bost. Soc. N. H., **17**, p. 293, 1875—Calumet Marshes, Ainsworth [=South Chicago], Illinois (cotypes now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 383, 1930); Nelson, Bull. Nutt. Orn. Cl., **1**, p. 40, 1876—Illinois (Calumet region, Grass Lake, Illinois River) and Wisconsin (Racine).

*Ammodramus caudacutus becki* Ridgway, Proc. U. S. Nat. Mus., **14**, p. 483, Oct. 22, 1891—Milpitas, Santa Clara County, California (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., **38**, p. 307, 1932).

*Ammodramus caudacutus nelsoni* Dwight, Auk, **13**, pp. 273, 275, pl. 4, 1896 (crit., range); Barlow, Condor, **2**, p. 132, 1900—Milpitas, California (Jan. and May); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 221, 1901 (monog., full bibliog.); Wetmore and Lincoln, Auk, **49**, p. 231, 1932—Ocean City and Cornfield Harbor, Maryland (October).

*Ammodramus nelsoni* Woodruff, Bull. Chicago Acad. Sci., **6**, p. 137, 1907—Chicago region.

*Ammospiza nelsoni* Breckenridge, Univ. Minn. Mus. Nat. Hist., Occ. Pap. **3**, p. 29, col. pl. 3, 1930—Minnesota (breeding range, bibliog.).

*Passerherbulus nelsoni nelsoni* Eifrig, Auk, **40**, p. 132, 1923—between Hyde and Wolf Lakes, Chicago (May 27).

*Range*.—Breeds in the marshes in the Canadian and Upper Transition zones of North America from Great Slave Lake and western Alberta south to southwestern Manitoba, northeastern South Dakota, and Minnesota; winters on the Atlantic and Gulf coasts from North Carolina to Florida and Texas; accidental in California.

21: Saskatchewan (Quill Lake, 1); Wisconsin (Lake Koshkonong, 1); Illinois (Chicago, 4; Worth, 2); South Carolina (Charleston, 1; Mount Pleasant, 1); Texas (High Island, 1); Louisiana (Buras, 4); Georgia (Cumberland Island, 1); Florida (Amelia Island, 1; Nassau County, 3; New Berlin, 1).

breeding season at points of the Maryland coast. Some of the specimens listed above under *A. c. caudacuta* may actually refer to *diversa*. The material of the genus has not been available to the author.

<sup>1</sup> An additional race, nearly related to *A. c. nelsoni*, has recently been described by Todd (Auk, **55**, p. 117, Jan., 1938) as *A. c. altera* from East Main, James Bay, Quebec (type in the Carnegie Museum).

**\**Ammospiza maritima maritima* (Wilson). NORTHERN SEASIDE SPARROW.**

*Fringilla maritima* Wilson, Amer. Orn., 4, p. 68, pl. 34, fig. 2, 1811—"sea islands along our Atlantic coast"—Great Egg Harbor, New Jersey, as designated by Oberholser (Proc. Biol. Soc. Wash., 44, p. 124, 1931) (no type extant).

*Ammodramus maritimus maritimus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 214, 1901 (monog., full bibliog.; range in part, excl. of Georgia).

*Passerherbulus maritimus maritimus* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 20, 1920—south to Cobb's Island, Virginia (descr. of young).

*Thryospiza maritima maritima* Oberholser, Proc. Biol. Soc. Wash., 44, p. 124, 1931—Massachusetts to North Carolina (crit.).

**Range.**—Breeds in the salt marshes of the Atlantic coast of the United States from Massachusetts to extreme northeastern North Carolina (Elizabeth City); winters from Virginia south to Florida (Amelia Island; Grassy Island in Taylor County).

30: New York (Piermont, 6; Gardiner's Island, 1; Orient, Long Island, 3; Long Island, 1); Connecticut (Lyme, 5); Virginia (Fisherman's Island, 1); South Carolina (Charleston, 2; Mount Pleasant, 3); Georgia (St. Mary's, Camden County, 1; McIntosh County, 1); Florida (Amelia Island, 3; Nassau County, 2; New Berlin, 1).

**\**Ammospiza maritima macgillivraii* (Audubon).<sup>1</sup> MACGILLIVRAY'S SEASIDE SPARROW.**

*Fringilla macgillivraii* Audubon, Orn. Biogr., 2, p. 285, 1834—Charleston, South Carolina (probable type in U. S. National Museum); idem, Bds. Amer. (folio), pl. 355, 1837.

*Ammodramus maritimus macgillivraii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 216, 1901—part, South Carolina (monog.).

*Passerherbulus maritimus macgillivraii* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 20, 1920—part, North and South Carolina (crit., descr. of young).

*Passerherbulus maritimus macgillivraii* Sprunt, Auk, 41, p. 482, 1924—fifteen miles south of Charleston, South Carolina (breeding); idem, l.c., 43, p. 549, 1926—near Rantowles, South Carolina (breeding); Wayne, l.c., 44, p. 259, 1927—South Carolina (crit.); Sprunt, l.c., 44, p. 423, 1927—fifteen miles north of Charleston (nest descr.).

<sup>1</sup> *Ammospiza maritima macgillivraii* (Audubon) is characterized by Oberholser as similar to the nominate race, but with darker, more strongly streaked upper parts, generally broader and darker striping on breast and flanks, and much broader, more conspicuous shaft-streaks on the median tail-feathers.

Mr. Oberholser considers breeding birds from the Charleston region as "practically identical" with those from Pea Island, North Carolina, although the late Arthur T. Wayne emphatically insisted that they were different.

*Thryospiza maritima macgillivraii* Oberholser, Proc. Biol. Soc. Wash., 44, p. 125, 1931—central eastern North Carolina south to the South Edisto River (crit.).

**Range.**—Breeds in salt marshes on the Atlantic coast of the United States from central eastern North Carolina (Pea Island) to the South Edisto River, South Carolina; winters to Georgia, eastern Florida (Amelia Island) and western Florida (Cedar Keys and Taylor County).

2: South Carolina (Mount Pleasant, 2).

***Ammospiza maritima waynei* (Oberholser).<sup>1</sup> WAYNE'S SEASIDE SPARROW.**

*Thryospiza maritima waynei* Oberholser, Proc. Biol. Soc. Wash., 44, p. 125, Oct. 17, 1931—Chatham County, Georgia (type in coll. of A. T. Wayne, now in Charleston Museum).

*Passerherbulus maritimus maritimus* (not *Fringilla maritima* Wilson) Wayne, Auk, 29, p. 103, 1912—Cabbage Island, Warsaw Sound, coast of Georgia (breeding).

*Passerherbulus maritimus macgillivraii* (not *Fringilla macgillivraii* Audubon) Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 20, 1920—part, Georgia (crit.).

**Range.**—Breeds in salt marshes on the Atlantic coast of the United States in Georgia and the extreme southeastern corner of South Carolina (Turtle Island, near the mouth of the Savannah River); winters south to Amelia Island, Florida (fide Oberholser).

***Ammospiza maritima pelonota* (Oberholser).<sup>2</sup> SMYRNA SEASIDE SPARROW.**

*Thryospiza maritima pelonota* Oberholser, Proc. Biol. Soc. Wash., 44, p. 126, Oct. 17, 1931—New Smyrna, Volusia County, Florida (type in U. S. National Museum).

<sup>1</sup> *Ammospiza maritima waynei* (Oberholser): "Similar to *A. m. macgillivraii*, but smaller and much lighter, with less blackish markings above, including the middle rectrices. Similar to *A. m. maritima*, but smaller and somewhat darker above, also rather darker and usually more extensively grayish below, particularly in worn plumage. Wing (male), 57–63½; tail, 51½–61; bill, 14–15." (Oberholser, l.c.)

While Griscom and Nichols attributed the puzzling variation exhibited by birds from the South Atlantic coast to intergradation, Oberholser claims that two additional races should be recognized in that region. It appears to me that the problem needs further investigation with the help of still larger series of breeding birds than are at present available in any museum.

<sup>2</sup> *Ammospiza maritima pelonota* (Oberholser): "Similar to *A. m. macgillivraii*, of North Carolina, which it closely resembles in color, but it has no broad shaft stripes on the middle tail-feathers and is smaller; wing and especially tail shorter; the bill and tarsus, however, are of the same size, thus being relatively larger. Similar to *A. m. waynei*, but much darker, more grayish (less yellowish olive)

*Thryospiza maritimus shannoni* Bailey, Bull. Bailey Mus. N. H., No. 7, p. 1, "Aug. 1, 1931" [=Dec. 2, 1931]—Duval County, Florida (type in coll. of H. H. Bailey).

*Ammodramus maritimus macgillivrayi* (not *Fringilla macgillivrayi* Audubon) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 216, 1901—part, Anastasia Island and Matanzas Inlet, Florida.

*Passerherbulus maritimus macgillivrayi* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 20, 1920—part, northeastern Florida (crit.).

"Macgillivray's Seaside Sparrow" Nicholson, Wils. Bull., 40, p. 226, 1928—Matanzas Inlet and New Smyrna (Volusia County), Florida (breeding habits).

*Range*.—Resident in the coast marshes of northeastern Florida, from Nassau County south to Volusia County (New Smyrna).

**\**Ammospiza maritima peninsulæ* (Allen). SCOTT'S SEASIDE SPARROW.**

*Ammodramus maritimus peninsulæ* Allen, Auk, 5, p. 284, July, 1888—Tarpon Springs, Florida (cotypes in the American Museum of Natural History, New York);<sup>1</sup> Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 216, 1901—west coast of Florida (monog.).

*Ammodramus peninsulæ* Scott, Auk, 6, p. 322, 1889—mouth of Anclote and Withlacoochee rivers, Florida (winter).

*Passerherbulus maritimus peninsulæ* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 24, 1920—Gulf Coast of Florida from St. Marks to Tampa Springs (crit.); Du Mont, Auk, 48, p. 252, 1931—Wall Springs and Indian Pass, south of Tarpon Springs; Baynard, Auk, 49, p. 97, 1932—Tarpon Springs (nest and eggs).

*Range*.—Resident in the salt marshes on the west coast of Florida from Lafayette County to Indian Pass (twenty miles south of Tarpon Springs).

6: Florida (Tarpon Springs, 6).

***Ammospiza maritima juncicola* (Griscom and Nichols).<sup>2</sup> WAKULLA SEASIDE SPARROW.**

*Passerherbulus maritimus juncicola* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 25, Nov. 3, 1920—East Goose Creek, Wakulla County, Florida (type in the American Museum of Natural History, New York).

brown above, and usually more heavily marked with black on the dorsal region. Wing (male), 59½–63; tail, 53–57½; tarsus, 22–25; bill, 14½–16." (Oberholser, l.c.)

See the remarks under the preceding footnote.

<sup>1</sup> The specimens from Grand Isle, Louisiana, pertain to another form subsequently separated by Chapman.

<sup>2</sup> *Ammospiza maritima juncicola* (Griscom and Nichols): "The darkest and blackest race, our single female in fresh plumage being a decided approach to *nigrescens*. Never with a brownish tinge as in *peninsulæ*, the crown almost

*Range*.—Gulf Coast of Florida, from St. Andrews Bay to southern Taylor County (exact limits unknown).

**\**Ammospiza maritima howelli* (Griscom and Nichols).<sup>1</sup>**  
HOWELL'S SEASIDE SPARROW.

*Passerherbulus maritimus howelli* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. H., No. 32, p. 22, Nov. 3, 1920—Dauphine Island, Alabama (type in U. S. National Museum); Wright and Bailey, Auk, 48, p. 123, 1931—Island off the east coast of Louisiana (June).

*Thryospiza maritima howelli* Howell, Bds. Alabama, p. 234, 1924—Alabama (breeding range).

*Range*.—Breeds on the coasts of Alabama, Mississippi, and Louisiana (east of the Mississippi); spreading to northern Florida and Texas in winter.

2: Louisiana (Buras, 1); Texas (High Island, 1).

**\**Ammospiza maritima fisheri* (Chapman). LOUISIANA SEASIDE SPARROW.**

*Ammodramus maritimus fisheri* Chapman, Auk, 16, p. 10, pl. 1 (upp. fig.), Jan., 1899—Grande Isle, Louisiana (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 217, 1901 (monog., full bibliog.).

*Passerherbulus maritimus fisheri* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 24, 1920 (crit.).

*Thryospiza maritima fisheri* Howell, Bds. Alabama, p. 235, 1924—Bayou La Batre, Alabama (Feb.).

*Range*.—Breeds in salt marshes of the Gulf Coast from Grande Isle, Louisiana, west to High Island, Texas; winters along the coast from western Florida to Corpus Christi, Texas.

unmarked (never sharply streaked), and the markings of the under parts diffuse and vaguely defined, except in fresh plumage when they are much broader and blacker. Only the faintest suggestion of buff on the breast in any plumage, an additional character separating it from *fisheri*. Wing (male), 57½–61; bill, 12–13." (Griscom and Nichols, l.c.)

Birds from St. Marks appear to be intergrades between *peninsulae* and *juncicola*.

<sup>1</sup> *Ammospiza maritima howelli* (Griscom and Nichols): "Close to *maritimus* and *macgillivraii* [including *waynei* and *pelonota*], the tone of the upper parts most like *maritimus*, paler than *macgillivraii*, slightly more olive, less grayish than either. The crown streaked like *macgillivraii*, though less conspicuously so; the nape immaculate like *maritimus*. The back with broad, ill-defined markings. The under parts darker, more extensively washed with gray than in either, and in fresh plumage the breast is deep ochraceous-buff, deeper than in any other race except *fisheri*. Bill on average slightly larger than in any other Gulf Coast race. Wing (male), 60–64; bill, 14–15." (Griscom and Nichols, l.c.)

This form has been found breeding on the coast of Alabama (Dauphine Island; Bayou La Batre; Petit Bois Island), Mississippi (Grande Batture Island, Horn Island), and on islands off the east coast of Louisiana. In opposition to other races, it does not inhabit the typical salt marshes, but frequents the *Iva* bushes on the outer islands. Winter stragglers have been taken in Florida (East Goose Creek, Wakulla County) and Texas (High Island).

3: Florida (Town Point, Santa Rosa County, 1); Louisiana (Buras, 1); Texas (High Island, 1).

**\**Ammospiza maritima sennetti* (Allen). TEXAS SEASIDE SPARROW.**

*Ammodramus marilimus sennetti* Allen, Auk, 5, p. 286, July, 1888—Corpus Christi, Texas (type in coll. of G. B. Sennett, now in the American Museum of Natural History, New York); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 218, 1901 (monog., full bibliog.).

*Ammodramus sennetti* Chapman, Auk, 16, p. 3, pl. 1 (low. fig.), 1899 (crit.).

*Passerherbulus maritimus sennetti* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 20, 1920—coast of Texas (crit.).

*Range*.—Breeds on the coast of Texas from Galveston at least to Corpus Christi, possibly to Brownsville.

1: Texas (Corpus Christi, 1).

***Ammospiza* (*maritima*?) *nigrescens* (Ridgway).<sup>1</sup> DUSKY SEASIDE SPARROW.**

*Ammodromus maritimus* var. *nigrescens* Ridgway, Bull. Essex Inst., 5, No. 5, p. 198, Dec., 1873—Indian River, Fla.=Merritt Island's, Florida (type in coll. of R. Ridgway, now in U. S. National Museum).

*Ammodramus melanoleucus* Maynard, Amer. Sportsman, 5, p. 248, Jan. 16, 1875—Salt Lake, Florida (type in coll. of C. J. Maynard, now in British Museum).

*Ammodramus nigrescens* Chapman, Auk, 16, p. 2, 1899 (range, crit.).

*Passerherbulus nigrescens* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 27, 1920 (crit., descr. of young); Bent and Copeland, Auk, 44, p. 384, 1927—Merritt's Island, Florida (resident).

"Dusky Seaside Sparrow" Nicholson, Wils. Bull., 40, p. 229, 1928—Merritt's Island (nesting habits).

*Range*.—Marshes at the northern end of Indian River, east coast of Florida.

34: Florida (Banana Creek, 4; Indian River, 4; Merritt's Island, Indian River, 6; Wilson, 20).

***Ammospiza mirabilis* (Howell).<sup>2</sup> CAPE SABLE SEASIDE SPARROW.**

*Thryospiza mirabilis* Howell, Auk, 36, p. 86, Jan., 1919—Cape Sable, Florida (type in U. S. National Museum); Holt and Sutton, Ann. Carnegie Mus., 16, p. 435, pl. 39, 1926—near Coconut Grove, Florida (habits).

<sup>1</sup> Although no material is at present available, I cannot help thinking that *nigrescens* is merely a race of *A. maritima*, inasmuch as certain individuals of *A. m. juncicola* seem to approach it very closely indeed.

<sup>2</sup> *Ammospiza mirabilis* (Howell): "Most like *A. m. sennetti*, but smaller; the upper parts brighter and more greenish, the edges on the tertials and scapulars more whitish; under parts much more extensively whitish and the streaks much

*Passerherbulus mirabilis* Griscom and Nichols, Abstr. Proc. Linn. Soc. N. Y., No. 32, p. 19, 1920—Cape Sable (crit.).

"Cape Sable Seaside Sparrow" Nicholson, Wils. Bull., 40, p. 234, 1928—Cape Sable region (nesting habits).

*Range*.—Coastal marshes in the vicinity of Cape Sable, Florida.

### Genus POOECETES Baird

*Poocetes* Baird, Rep. Expl. & Surv. R. R. Pacif., 9, p. xxxix, 1858—type by monotypy, *Fringilla graminea* Gmelin.

*Poocaetes* Baird, Rep. Expl. & Surv. R. R. Pacif., 9, pp. 439, 447, 1858—same type.

#### \**Poocetes gramineus gramineus* (Gmelin). EASTERN VESPER SPARROW.

*Fringilla graminea* Gmelin, Syst. Nat., 1, (2), p. 922, 1789—based on "Grass Finch" Pennant, Arct. Zool., 2, p. 375; New York.

*Poocetes gramineus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 670, 1888 (monog.).

*Poocetes gramineus gramineus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 182, 1901 (monog., full bibliog.); Cole, Bull. Mus. Comp. Zool., 50, p. 144, 1906—Chichen-Itzá, Yucatan.

*Range*.—Breeds from central Ontario, southern Quebec, and Cape Breton Island south to eastern Nebraska, Missouri, Kentucky, Virginia, and North Carolina, and west to western Minnesota; winters from the southern part of its breeding range to the Gulf Coast, southern Florida, and middle Texas; casual in Bermuda and Yucatan.

84: Maine (Lincoln, 1); Michigan (Grand Rapids, 1); Wisconsin (Waupaca, 1; Sheboygan County, 1; Plymouth, 1; Beaver Dam, 7; Madison, 1; Milton, 1); Illinois (Beach, Lake County, 4; Waukegan, 1; Lake Forest, 2; Glenview, 1; Chicago, 2; South Chicago, 1; Hegewisch, 1; Addison, 2; Momence, 1; Wolf Lake, 3; Joliet, 2; Warsaw, 1); Indiana (Liverpool, 3; Davis Station, 1); Ohio (Columbus, 1); New York (Cayuga County, 1; Shelter Island, 4); Massachusetts (Hyannis, 1; Cambridge, 1); Connecticut (East Hartford, 21); New Jersey (Englewood, 2); North Carolina (Raleigh, 1); Florida (Key West, 1; Gainesville, 3; Mary Esther, 9).

#### \**Poocetes gramineus affinis* (Miller). OREGON VESPER SPARROW.

*Poocaetes gramineus affinis* Miller, Auk, 5, p. 404, Oct., 1888—Salem, Oregon (type in coll. of Gerrit S. Miller, now in British Museum).

darker and more sharply defined. Wing (male), 57–60; tail, 50–53; bill, 12–12½." (Howell, l.c.)

This very distinct form, which has more yellow around the eye than the races of *A. maritima*, may ultimately prove to be conspecific with that group, as a casual inspection of the series in the Carnegie Museum seemed to suggest.

*Poocetes gramineus affinis* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 186, 1901 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., **32**, p. 160, 1928—Santo Domingo, Lower California.

*Range*.—Breeds in the Transition zone of the Pacific Coast district from extreme southern British Columbia to southwestern Oregon; winters from central California to northern Lower California (Santo Domingo) and Arizona.

2: Oregon (Logan, 1; 10 miles north of Salem, 1).

**\**Poocetes gramineus confinis* Baird. WESTERN VESPER SPARROW.**

[*Poocetes gramineus*] var. *confinis* Baird, Rep. Expl. & Surv. R. R. Pacif., **9**, p. 448, 1858—western United States (type, from Loup Fork of the Platte River, Nebraska, in U. S. National Museum; cf. Oberholser, Sci. Pub. Clevel. Mus. N. H., **4**, p. 11, 1932).

[*Poocetes gramineus*] subsp. *a* *P. confinis* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 672, 1888 (monog.).

*Poocetes gramineus confinis* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 184, 1901 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., **32**, p. 160, 1928—Lower California; van Rossem, Trans. San Diego Soc. N. H., **6**, p. 298, 1931—Sonora (Tecoripa, Obregón, Tésia, Chinobampo, Guiricoba); Griscom, Bull. Amer. Mus. N. H., **64**, p. 358, 1932—Guatemala; idem, Bull. Mus. Comp. Zool., **75**, p. 416, 1934—Chilpancingo, Guerrero; van Rossem, l.c., **77**, p. 485, 1934—Sonora (Alamos) and Chihuahua.

(?) *Poocetes gramineus definitus* Oberholser, Sci. Pub. Clevel. Mus. N. H., **4**, p. 11, Sept., 1932—Twenty Mile Creek, Warner Valley, nine miles south of Adel, Oregon (type in Cleveland Museum of Natural History).<sup>1</sup>

*Range*.—Breeds from southeastern British Columbia, north-eastern Alberta, and southern Saskatchewan to middle eastern California, Arizona, New Mexico, and Texas, and east to the middle of the Great Plains; winters from southern California and Texas to southern Lower California, southern Mexico, and occasionally to Louisiana and Guatemala.

60: British Columbia (Okanagan, 1); Alberta (Edmonton, 1); Saskatchewan (Quill Lake, 1); Montana (Billings, 1; Dry Creek, 1); California (Corona, 1; Riverside, 2); Kansas (Hamilton, 1); Colorado (Boulder, 1; Lakewood, Denver, 1; Hot Sulphur Springs, 1; Fort Lyon, 8); Arizona (Phoenix, 6; Tucson, 1; unspecified, 1); New

<sup>1</sup> The characters indicated for this form (slightly paler upper parts and lesser extent of white on the lateral rectrices) do not strike me as being of much consequence in view of their considerable individual variability within the same locality. According to Oberholser, the breeding range of *confinis* comprises the Great Plains and the Rocky Mountain region north to central Canada, west to Idaho and Utah, south to New Mexico and Arizona, east to North Dakota, while *definitus* breeds in Nevada and central eastern California, north to interior Washington, and east to southeastern Oregon. The matter appears to require further investigation.



Mexico (Deming, 9; Mimbres, 1); Texas (El Paso, 3; Ingram, Kerr County, 2; Waring, Kendall County, 1; Giddings, 1; Gainesville, 1; Corpus Christi, 11; Harlingen, 1); Mexico (Bustillos, Chihuahua, 1; San Luis Potosí, 1).

### Genus **CHONDESTES** Swainson

*Chondestes* Swainson, Phil. Mag., (n.s.), 1, No. 6, p. 435, June, 1827—type, by monotypy, *Chondestes strigatus* Swainson.

#### **\*Chondestes grammacus grammacus** (Say). EASTERN LARK SPARROW.

*Fringilla grammaca* Say, in Long, Exped. Rocky Mts., 1, p. 139 (note), 1823 —Prairies on the Missouri between the Kansas and Platte=Bellevue, four miles from the mouth of the Missouri River, Missouri (type lost).

*Chondestes grammica* Sharpe, Cat. Bds. Brit. Mus., 12, p. 591, 1888 (in part).

*Chondestes grammacus grammacus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 176, 1901 (monog., full bibliog.); Griscom, Bull. Mus. Comp. Zool., 75, p. 416, 1934—Chilpancingo, Guerrero.

**Range.**—Breeds mainly in the Austral zone of North America from eastern Nebraska, northwestern Minnesota, central Wisconsin, and southern Ontario south to southern Louisiana and central Alabama, east to extreme western Pennsylvania, Maryland, and northwestern Virginia; winters in southern Mississippi, southeastern Texas, and eastern and southern Mexico.

19: Illinois (Lake Forest, 1; Worth, 2; Grand Tower, 3; Grand Chain, 1); Missouri (Cliff Cave, 1); Texas (Brownsville, 1; Corpus Christi, 3); Louisiana (Buras, 2); Florida (Key West, 1); Mexico (Ciudad Victoria, Tamaulipas, 1; Iguala, Guerrero, 1; San Luis Potosí, 1; Morelia, Michoacan, 1).

#### **\*Chondestes grammacus strigatus** Swainson. WESTERN LARK SPARROW.

*Chondestes strigatus* Swainson, Philos. Mag., (n.s.), 1, No. 6, p. 435, June, 1827—Temascaltepec, tableland of Mexico (type in coll. of W. Swainson, now in University Museum, Cambridge, Mass.; cf. van Rossem, Bull. Mus. Comp. Zool., 77, p. 485, 1934); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 375, 1886—part, western United States and Barranco Hondo, Guatemala.

*Chondestes grammica* (not *Fringilla grammaca* Say) Sharpe, Cat. Bds. Brit. Mus., 12, p. 591, 1888 (in part).

*Chondestes grammacus strigatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 178, 1901 (monog., full bibliog.); Phillips, Auk, 28, p. 88, 1911—Tamaulipas (Matamoros, San Fernando, Montelunga, Rio Cruz); Miller, Bull. Amer. Mus. N. H., 21, p. 365, 1905—Escuinapa, Sinaloa (crit.); idem, l.c., 22, p. 175, 1906—Rancho Baillon, Durango; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 47, 1927—Labrados, Sinaloa; Grinnell, Univ. Calif. Pub.

Zool., 32, p. 164, 1928—Lower California; Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 402, 1928—Chivelá, and Tapanatepec, Oaxaca; van Rossem, Trans. San Diego Soc. N. H., 6, p. 299, 1931—Sonora (Saric, Obregón, Tésia, Guircoba, fifteen miles southwest of Nogales); Griscom, Bull. Amer. Mus. N. H., 64, p. 358, 1932—Sacapulas, Guatemala; idem, Bull. Mus. Comp. Zool., 75, p. 416, 1934—Taxco and Chilpancingo, Guerrero; van Rossem, l.c., 77, p. 485, 1934—Sonora (Guaymas, Alamos, Oposura, Granados, Bacuachi) and Chihuahua (crit.).

*Range*.—Breeds mainly in the Austral zone of North America from southern British Columbia and southern Saskatchewan south to the Mexican tableland (Coahuila, Chihuahua, Durango) and from the Pacific coast east to central North Dakota and eastern Texas; winters from California and Texas through Lower California and Mexico to Guatemala.

62: Oregon (Eagle Point, 1); California (Clipper Gap, Placer County, 5; Placer County, 1; San Geronimo, 1; Nicasio, 4; Hayward, 1; Monterey, 1; San José, 1; Los Gatos, 1; Anderson, 1; Pomona, 1; Corona, 1; Fairfax, 1; Sargent, 1; San Diego, 3); North Dakota (Cannonball River, 2); Colorado (Larimer County, 1; Hot Sulphur Springs, 1; Fort Lyon, 5; Kremmling, 1; unspecified, 1); Arizona (Phoenix, 3; Tucson, 2; Santa Rita Mountains, 1; Huachuca Plains, 2; Huachuca Mountains, 2; Carr Canyon, Huachuca Mountains, 1; Calabasas, 3); Arkansas (Faulke, 1); Texas (Gainesville, 1; Fort Clark, 1; Fort Worth, 1; Ingram, 2; Laredo, 1; Kendall County, 1; Corpus Christi, 4); Mexico (Nuevo León, 1).

***Chondestes grammacus actitus* Oberholser.<sup>1</sup> OREGON LARK SPARROW.**

*Chondestes grammacus actitus* Oberholser, Sci. Pub. Clevel. Mus. N. H., 4, p. 12, Sept. 19, 1932—mouth of Twenty Mile Creek, Warner Valley, Oregon (type in Cleveland Museum of Natural History).

*Range*.—Breeds in the Warner Valley of southern Oregon; in migration south to southern Arizona (Redington).

**Genus RHYNCHOSPIZA Ridgway<sup>2</sup>**

*Rhynchospiza* Ridgway, Auk, 15, p. 224, 1898—type, by orig. desig., *Haemophila stolzmanni* Taczanowski.

<sup>1</sup>*Chondestes grammacus actitus* Oberholser: "Similar to *C. g. strigatus* from Mexico, but with the upper parts, excepting the chestnut stripes of the head, decidedly paler; wing somewhat longer. Wing (male), 87½–95½; tail, 68–75; bill, 11–12½." (Oberholser, l.c.)

While it seems hard to believe that a peculiar race should exist in the heart of the range of *C. g. strigatus*, it may be found expedient to subdivide the latter form, since both Miller and van Rossem mention pale individuals among winter birds from Sinaloa and Sonora. The matter, at any rate, deserves investigation.

<sup>2</sup>*Rhynchospiza* Ridgway: Very similar to *Aimophila*, but tail much shorter than the wing instead of being equal to it, or longer; rectrices broader and less

**Rhynchospiza stolzmanni** (Taczanowski). STOLZMANN'S SPARROW.

*Haemophila stolzmanni* Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 322, pl. 36, fig. 2—Tumbez, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 175, 1927); idem, l.c., 1877, p. 750—Tumbez (habits); idem, Orn. Pér., 3, p. 47, 1886—Peru (Tumbez, Chongollape, Nancho, Paucal); Sharpe, Cat. Bds. Brit. Mus., 12, p. 727, 1888—Tumbez.

*Rhynchospiza stolzmanni* Chapman, Bull. Amer. Mus. N. H., 55, p. 625, 1926—Ecuador (Casanga) and Peru (Pillares, Dept. Tumbez).

*Range*.—Arid Tropical zone of extreme southwestern Ecuador (Casanga Valley, Prov. de Loja) and northwestern Peru, in depts. of Tumbez (Tumbez, Pillares), Piura (Marropon), Lambayeque (Chongollape), Libertad (Tembladera), and Cajamarca (Nancho).<sup>1</sup>

Genus **AIMOPHILA** Swainson

*Aimophila* Swainson, Nat. Hist. & Classif. Bds., 2, p. 287, July, 1837 (generic characters only);<sup>2</sup> idem, Anim. in Menag., p. 314, Dec. 31, 1837—type, by subs. desig. (Gray, List Gen. Bds., p. 46, 1840), *Aimophila rufescens* Swainson = *Pipilo rufescens* Swainson.

*Haemophila* Cabanis, Mus. Hein., 1, p. 132, Oct., 1851—new name for *Aimophila* Swainson.

*Haimophila* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 922, 1853—emendation.

*Peuceaea* Audubon, Syn. Bds. N. Amer., p. 112, 1839—type, by subs. desig. (Gray, List Gen. Bds., p. 60, 1841), *Peuceaea bachmanii* Audubon.

**Aimophila quinquestriata quinquestriata** (Sclater and Salvin). FIVE-STRIPED SPARROW.

*Zonotrichia quinquestriata* Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 323—Mexico<sup>3</sup> (type in coll. of P. L. Sclater, now in British Museum); Ridgway, Ibis, 1883, p. 400 (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, pl. 27, fig. 2, 1886 (fig. of type).

rounded terminally; nostrils nearly hidden by latero-frontal plumules; maxilla deeper, with the culminal line straighter and less convex.

The species constituting this monotypic genus resembles certain Central American *Aimophilae*, notably *A. sumichrasti*, so closely in color-pattern and general features that the propriety of separating it generically may well be questioned, although the differently shaped rectrices and the short, nearly even tail are good taxonomic characters.

<sup>1</sup> *Material examined*.—Ecuador: Casanga, Prov. de Loja, 1.—Peru: Tumbez, 1; Marropon, Piura, 1; Tembladera, Libertad, 2.

<sup>2</sup> The two species cited by Swainson were at the time undescribed, and were not characterized until six months later. Gray designated *A. rufescens*, one of the two species described by Swainson in "Anim. in Menageries" in connection with the generic name *Aimophila*, as genotype.

<sup>3</sup> The type was collected by Flores, probably at Bolaños, Jalisco. At any rate it agrees with authentic Jalisco specimens except for its longer wing (68 mm.), as has been shown by van Rossem (Bull. Mus. Comp. Zool., 77, p. 386, 1934).

*Amphispiza quinquestriata* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 368, 1886—Mexico; Sharpe, Cat. Bds. Brit. Mus., 12, p. 632, 1888—Mexico.

*Aimophila quinquestriata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 236, 1901—part, Jalisco (Bolaños, Mesquitic).

*Range*.—Southwestern Mexico, in State of Jalisco (Bolaños, Mesquitic, etc.).

***Aimophila quinquestriata septentrionalis* van Rossem.<sup>1</sup> NORTH-ERN FIVE-STRIPED SPARROW.**

*Aimophila quinquestriata septentrionalis* van Rossem, Bull. Mus. Comp. Zool., 77, p. 485, Dec., 1934—Hacienda de San Rafael, Sonora, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Aimophila quinquestriata* (not *Zonotrichia quinquestriata* Sclater and Salvin) Salvin and Godman, Ibis, 1889, p. 238—Nuri, Sonora; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 236, 1901—part, Sonora and Chihuahua; van Rossem, Trans. San Diego Soc. N. H., 6, p. 300, 1931—Guircocoba, Sonora.

*Range*.—Northwestern Mexico, in states of Sonora, Chihuahua, and probably northern Sinaloa.<sup>2</sup>

***Aimophila mystacalis* (Hartlaub).<sup>3</sup> BRIDLED SPARROW.**

*Zonotrichia mystacalis* Hartlaub, Rev. Mag. Zool., (2), 4, p. 2, 1852—Rio Frio, Puebla, and City of Mexico (type, from Rio Frio, Puebla, in Bremen Museum);<sup>4</sup> Sclater, Proc. Zool. Soc. Lond., 24, p. 305, 1856—southern Mexico; idem, l.c., 27, p. 379, 1859—Oaxaca; Lawrence, Bull. U. S. Nat. Mus., 4, p. 21, 1876—Tehuacan, Puebla; Ridgway, Ibis, 1883, p. 400 (crit.).

*Amphispiza mystacalis* Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 143, 1886—Chietla, Puebla.

*Haemophila mystacalis* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 398, 1886—Puebla (Tehuacan) and Oaxaca; Sharpe, Cat. Bds. Brit. Mus., 12, p. 728, 1888—Puebla and Oaxaca (San Juan del Rio).

*Aimophila mystacalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 236, 1901—southern Mexico (monog.).

*Range*.—Southern extremity of Mexican plateau, in states of Vera Cruz (Orizaba), Puebla (Rio Frio, Tehuacan, Atlixco, Chietla), and Oaxaca (San Carlos, Mitla, Oaxaca, Cuicatlan, etc.).

<sup>1</sup> *Aimophila quinquestriata septentrionalis* van Rossem: Similar to the nominate race, but somewhat larger, and coloration paler, with smaller breast spot. Wing of males, 67–73 (against 63–68); tail, 67–72 (against 61–65).

<sup>2</sup> No material from Durango has been critically studied.

<sup>3</sup> We are not acquainted with this species.

<sup>4</sup> A cotype from Mexico City is in the Hamburg Museum (cf. Bolau, Mitt. Naturhist. Mus. Hamburg, 15, p. 61, 1898).

**\**Aimophila humeralis humeralis* (Cabanis). FERRARI-PEREZ'S SPARROW.**

*Haemophila humeralis* Cabanis, Mus. Hein., 1, p. 132, Oct., 1851—Mexico (type in Heine Collection, now in Municipal Museum, Halberstadt); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 398, pl. 29, fig. 1, 1886—Chietla, Puebla; Sharpe, Cat. Bds. Brit. Mus., 12, p. 727, 1888—eighteen leagues from Puebla, towards Chietla; Salvin and Godman, Ibis, 1889, p. 239—Sierra Madre del Sur, Guerrero.

*Haimophila humeralis* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 922, 1853—"City of Mexico" (descr.).

*Amphispiza ferrariperezi* Ridgway, Auk, 3, p. 332, 1886—Chietla, Puebla (type in National Museum of Mexico); idem, Proc. U. S. Nat. Mus., 9, p. 143, 1886—Chietla.

*Aimophila humeralis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 237, 1901—southern Mexico (monog.).

*Aimophila humeralis humeralis* Griscom, Bull. Mus. Comp. Zool., 75, p. 417, 1934—Taxco and Chilpancingo, Guerrero.

**Range.**—Southern portion of Mexican plateau, in states of Puebla (Chietla), Morelos (Cuernavaca, Yautepec), and Guerrero (Tlapa, Tlakisala, Taxco, Chilpancingo, Iguala, Sierra Madre del Sur).

12: Mexico (Iguala, Guerrero, 12).

***Aimophila humeralis asticta* Griscom.<sup>1</sup> COLIMA SPARROW.**

*Aimophila humeralis asticta* Griscom, Bull. Mus. Comp. Zool., 75, p. 417, Dec., 1934—Colima, Colima, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

**Range.**—Southwestern Mexico, in State of Colima (Colima).

**\**Aimophila ruficauda ruficauda* (Bonaparte). RUSSET-TAILED GROUND SPARROW.**

*Chondestes ruficauda* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 918, 1853—Nicaragua (type in Paris Museum); idem, Not. Orn. Coll. Delattre, p. 18, 1854 (reprint).

*Haemophila ruficauda* Nutting, Proc. U. S. Nat. Mus., 6, p. 383, 1884—Sucuyá, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 396, 1886—part, San Salvador (Acajutla), Nicaragua (Sucuyá), and Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 12, p. 724, 1888—part, spec. c, Nicaragua and Costa Rica; Underwood, Ibis, 1896, p. 436—Costa Rica (Miravalles, Bebedéro, Bagáces); Lantz, Trans. Kans. Acad. Sci., 16, p. 222, 1899—Granada, Nicaragua.

*Aimophila ruficauda ruficauda* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, pp. 238, 673, 1901—part, Costa Rica; Carriker, Ann. Carnegie Mus., 6,

<sup>1</sup> *Aimophila humeralis asticta* Griscom: Similar to the nominate race, but without black streaks on the back, these being replaced by more diffuse dusky centers; rump concolor with back, instead of grayish brown, with or without faint rufescent tips to some of the feathers (Griscom, l.c.).

This form, which rests on a single adult male, is unknown to the author.

p. 910, 1910—Mojica, Bebedéro, Bagáces, Bolson, Coralfillo, and Tenorio, Guanacaste, Costa Rica; Rendahl, Ark. Zool., 12, No. 8, p. 32, 1919—Masaya and Granada, Nicaragua.

*Range*.—Arid Tropical zone of the Pacific slope of El Salvador (Acajutla), Nicaragua, and northwestern Costa Rica (Guanacaste).<sup>1</sup>

13: Nicaragua (San Gerónimo, Chinandega, 7); Costa Rica (Las Cañas, 6).

**\**Aimophila ruficauda connectens* Griscom.<sup>2</sup> MOTAGUA VALLEY GROUND FINCH.**

*Aimophila ruficauda connectens* Griscom, Amer. Mus. Novit., 438, p. 9, Dec. 15, 1930—Progreso, Guatemala (type in coll. of J. Dwight, Jr., now in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 64, p. 359, 1932—Progreso and Gualan, Guatemala.

*Haemophila ruficauda* (not *Chondestes ruficauda* Bonaparte) Sclater and Salvin, Ibis, 1860, p. 398—Valley of the Rio Motagua, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 118, 1862—Chuacas, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 396, pl. 30, fig. 2, 1886—part, Guatemala (Chol, Chuacas, and Motagua Valley from Guastatoya to Gualan); Sharpe, Cat. Bds. Brit. Mus., 12, p. 724, 1888—part, spec. a, b, Guatemala (Chuacas).

*Aimophila ruficauda* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 238, 1901—part, Guatemala.

*Aimophila ruficauda lawrencei* (not *Haemophila lawrencii* Salvin and Godman) Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 116, 1907—El Rancho, Guatemala (crit.).

*Range*.—Arid Tropical zone of northern Guatemala, chiefly in the Motagua Valley and near-by districts of Baja Vera Paz (Chol, Chuacas).

5: Guatemala (El Rancho, 5).

***Aimophila ruficauda lawrencii* (Salvin and Godman).<sup>3</sup> TEHUAN-TEPEC GROUND SPARROW.**

*Haemophila lawrencii* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 397, Aug., 1886—Juchitan, Oaxaca, Mexico (type in Salvin-Godman Collection,

<sup>1</sup> A series from Bebedéro, Costa Rica, agrees well with two adults from the west shore of Lake Nicaragua.

<sup>2</sup> *Aimophila ruficauda connectens* Griscom: Very near to *A. r. ruficauda*, but dorsal plumage more grayish, less tinged with rufescent, thus closely resembling *A. r. lawrencii*, from which it may be separated by decidedly rufescent tail.

While not strongly marked, this form cannot well be united to either of its allies, combining, as it does, the distinctly rufescent tail of one with the grayish brown plumage of the other. I do not find any difference among the three races in the color of the dark stripes on the pileum.

<sup>3</sup> An earlier name for either this or the succeeding form is *Aimophila tolteca* J. W. von Müller (Reisen Ver. St., Canada, and Mexico, 3, p. 584, 1865) from

now in British Museum); Sharpe, Cat. Bds. Brit. Mus., 12, p. 723, 1888—Juchitan.

*Haemophila ruficauda* (not *Chondestes ruficauda* Bonaparte) Lawrence, Bull. U. S. Nat. Mus., 4, p. 22, 1876—Tehuantepec City, Santa Efigenia, and Juchitan, Oaxaca.

*Aimophila ruficauda lawrencii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 239, 1901—Pacific side of Oaxaca (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 402, 1928—Chivelá, Lagunas, and Tapanatepec, Oaxaca.

**Range.**—Arid Tropical zone of southwestern Mexico, in State of Oaxaca (Juchitan, Santa Efigenia, Tehuantepec, Chimalapa, Huilo-tepec, Chivelá, Lagunas, Tapanatepec).

**\**Aimophila ruficauda acuminata* (Salvin and Godman).<sup>1</sup> COLIMA GROUND SPARROW.**

*Haemophila acuminata* (ex *Fringilla acuminata* Lichtenstein, MS.) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 397, August, 1886—"Yuan-tepec" [=Yautepec], plains of Colima, Acapulco, and between Puebla and Chietla, Mexico (type, from Yautepec, Morelos, in coll. of P. L. Sclater, now in British Museum); Sharpe, Cat. Bds. Brit. Mus., 12, p. 723, 1888—same localities; Salvin and Godman, Ibis, 1889, p. 239—Sierra Madre del Sur, Guerrero.

*Zonotrichia melanotis* (not *Geospizopsis melanotis* Bonaparte) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 473, May, 1867—plains of Colima, Mexico (type in U. S. National Museum); idem, Proc. Acad. Nat. Sci. Phila., 1868, p. 430 (crit.).

*Haemophila melanotis* Salvin, Proc. Zool. Soc. Lond., 1883, p. 422—Acapulco, Guerrero.

*Aimophila melanotis* Lawrence, Mem. Bost. Soc. N. H., 2, p. 277, 1874—plains of Colima; Ridgway, Proc. U. S. Nat. Mus., 9, p. 145, 1886—Chietla, Puebla (crit.).

*Aimophila acuminata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 240, 1901—southwestern Mexico (monog.); Griscom, Bull. Mus. Comp. Zool., 75, p. 417, 1934—Coyucá, Guerrero.

**Range.**—Southwestern Mexico, in states of Guerrero (Acapulco, Tierra Colorada, Tlapa, Iguala, Coyucá), Colima, and Jalisco

Mexico. The description fits the one just as well as the other, except the passage "pectore griseo" which points rather to *lawrencii*, while the measurements, no sex being indicated, are practically useless. Von Müller travelled in the ranges of both races, and as there is no clue to the exact locality of the type specimen, which cannot be located, the name must remain indeterminable.

<sup>1</sup>*Aimophila ruficauda acuminata* (Salvin and Godman) may be distinguished by smaller size (sex for sex), blacker head stripes, less rufescent tail, and whitish breast with at best traces of grayish suffusion.

Eight additional specimens examined.

(Ameca, Etzatlán, Tuxpan, San Sebastian), east to Morelos (Cuernavaca, Yautepec), Puebla (Chietla), and Durango (Huasamota).<sup>1</sup>

17: Mexico (Iguala, Guerrero, 14; Tuxpan, Jalisco, 3).

**\**Aimophila carpalis carpalis* (Coues). RUFIOUS-WINGED SPARROW.**

*Peucaea carpalis* Coues, Amer. Nat., 7, No. 6, p. 322, June, 1873—Tucson, Arizona (type in U. S. National Museum); Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 2, pl. 46, fig. 8, 1874; Henshaw, Zool. Exp. W. 100th Merid., p. 291, 1875—Camp Lowell, Arizona (habits); Brewster, Bull. Nutt. Orn. Cl., 7, p. 195, 1882—Tucson and Camp Lowell, Arizona; Stephens, Auk, 2, p. 228, 1885—southeastern Arizona; Scott, Auk, 4, p. 203, 1887—Santa Catalina Mts., Arizona; Sharpe, Cat. Bds. Brit. Mus., 12, p. 715, 1888—Arizona (Santa Catalina Mts., Tucson, Camp Lowell); Allen, Bull. Amer. Mus. N. H., 5, p. 39, 1893—Granados, Sonora.

*Aimophila carpalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 241, 1901—part, Arizona and Sonora (Ortiz, Alamos); Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 328, 1929 (not observed in southern Arizona); van Rossem, Trans. San Diego Soc. N. H., 6, p. 299, 1931—Sonora (part, Guaymas, Pesqueira, Saric, El Alamo, between Sásabe and Altar).

*Aimophila carpalis carpalis* van Rossem, Bull. Mus. Comp. Zool., 77, p. 485, 1934—Guaymas and Oposura, Sonora.

**Range.**—Southern Arizona<sup>2</sup> and the northern and western parts of Sonora (south approximately to the vicinity of Guaymas), north-western Mexico.

1: Arizona (Tucson, 1).

***Aimophila carpalis bangsi* Moore.<sup>3</sup> SONORA RUFIOUS-WINGED SPARROW.**

*Aimophila carpalis bangsi* Moore, Proc. Biol. Soc. Wash., 45, p. 232, Dec. 23, 1932—Guero-coba, Sonora, Mexico (type in coll. of Donald R. Dickey, Pasadena); van Rossem, Bull. Mus. Comp. Zool., 77, p. 485, 1934—Alamos, Sonora.

<sup>1</sup> Van Rossem (Bull. Brit. Orn. Cl., 58, p. 128, July 13, 1938) recently split the above form into three, separating three molting birds with incomplete tails from Tepic, Nayarit, as *A. acuminata nayaritensis*, and the inhabitants of Guerrero as *A. acuminata guerrenensis* (type from Acaguazotla, Guerrero, in British Museum).

<sup>2</sup> Although searched for in vain for many years in Arizona, the species has recently again been found at Fresnal by R. T. Moore.

<sup>3</sup> *Aimophila carpalis bangsi* Moore: Similar to *A. c. carpalis*, but smaller; bill slender; legs and feet likewise weaker; wing more rounded; mandible and tarsi lighter in color. Wing, 55–61 (against 61–64), (female) 55–58 (against 57½–61); tail, 52–61 (against 61–65), (female) 54–60 (against 60–64); bill, 9–10½.

This form is typical in southern Sonora (from Obregón to Guero-coba). Specimens from Tecoripa and San Javier are stated by the describer to be intermediate to *carpalis*.



*Aimophila carpalis* (not *Peucaea carpalis* Coues) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 241, 1901—part, Sonora (Alamos) and Sinaloa (Culiacan); van Rossem, Trans. San Diego Soc. N. H., 6, p. 299, 1931—part, southern Sonora (Tecoripa, San Javier, Obregón, Tésia, Chinobampo, Guirocoba).

*Range*.—Southern Sonora, north approximately to Obregón, and the adjacent parts of Sinaloa (Culiacan), northwestern Mexico.

2: Mexico (Alamos, Sonora, 2).

***Aimophila sumichrasti* (Lawrence).<sup>1</sup> SUMICHRAST'S SPARROW.**

*Hemiphila sumichrasti* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 6, Feb., 1871—Juchitan, Oaxaca, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 4, p. 22, 1876—Juchitan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 395, 1886—Juchitan, Oaxaca; Sharpe, Cat. Bds. Brit. Mus., 12, p. 726, 1888—Juchitan.

*Aimophila sumichrasti* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 240, 1901—Oaxaca, southern Mexico (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 402, 1928—Chivelá, Oaxaca.

*Range*.—Arid Tropical zone of southern Mexico, in State of Oaxaca (Santo Domingo, Tehuantepec, San Bartolo, Juchitan, Salina Cruz, Chivelá).

***Aimophila notosticta* (Sclater and Salvin).<sup>2</sup> OAXACA SPARROW.**

*Peucaea notosticta* Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 322—"in Mexico meridionali," either in the State of Mexico or in Puebla (type in Salvin-Godman Collection, now in British Museum); Ridgway, Ibis, 1883, p. 400 (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 393, pl. 28, fig. 1, 1886—probably Puebla, Mexico.

[*Peucaea ruficeps*] subsp.  $\gamma$  *Peucaea notosticta* Sharpe, Cat. Bds. Brit. Mus., 12, p. 715, 1888—Oaxaca.

*Aimophila notosticta* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 242, 1901—Cerro San Felipe and Ejutla, Oaxaca (monog.).

*Range*.—Southeastern Mexico, in State of Oaxaca (Cerro San Felipe, Ejutla) and probably adjacent parts of Puebla.

***Aimophila rufescens mcleodii* Brewster. MCLEOD'S SPARROW.**

*Aimophila rufescens mcleodii* Brewster, Auk, 5, p. 92, Jan., 1888—El Carmen, Chihuahua, Mexico (cotypes in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 383, 1930); Allen, Bull. Amer. Mus. N. H., 5, p. 39, 1893—

<sup>1</sup> *Aimophila sumichrasti* seems to be nearly related to *A. carpalis*, from which it differs chiefly by greater dimensions, much larger bill, rufescent tail, and much more brownish dorsal plumage with heavier blackish markings. It may ultimately prove to be merely a strongly marked geographical race, but with only a single adult specimen before me I cannot say anything positive about its proper status.

<sup>2</sup> *Aimophila notosticta* (Sclater and Salvin), which we have not yet met with, seems to be remarkable for its black bill and dark brown crown-stripes. Its natural affinities are in doubt.

Puerto de los Pinitos, Sonora; Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 246, 1901—northwestern Mexico (monog.).

*Aimophila cahooni* Brewster, Auk, **5**, p. 93, Jan., 1888—near Oposura, Sonora, Mexico (cotypes in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 384, 1930).

*Peucaea megarhyncha* Salvin and Godman, Ibis, (6), **1**, p. 238, April, 1889—Santa Ana, Sonora, Mexico (type in Salvin-Godman Collection, now in British Museum).

*Peucaea notosticta* (not of Salvin and Godman) Allen, Bull. Amer. Mus. N. H., **5**, p. 39, 1893—Bavispe River and Guanopo, Sonora.

*Aimophila rufescens mcleodii* van Rossem, Bull. Mus. Comp. Zool., **77**, p. 486, 1934—Sonora (Mina Abundancia, Hacienda de San Rafael, Oposura) and Chihuahua (Jesus Maria, Carmen).

*Range*.—Northwestern Mexico, in states of Sonora, Chihuahua, and Durango (Chacala).<sup>1</sup>

### *Aimophila rufescens pallida* Nelson and Palmer.<sup>2</sup> ETZATLAN SPARROW.

*Aimophila rufescens pallida* Nelson and Palmer, Auk, **11**, p. 43, Jan., 1894—Etzatlán, Jalisco, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 245, 1901—Michoacan, Jalisco, and Sinaloa (monog.); Miller, Bull. Amer. Mus. N. H., **21**, p. 365, 1905—Juan Lisiarraga Mountains, Sinaloa.

(?) *Aimophila rufescens sinaloa* Ridgway, Auk, **16**, p. 254, 1899—Tatemalis, Sinaloa (type destroyed, formerly in the California Academy of Sciences); idem, Bull. U. S. Nat. Mus., **50**, Part 1, p. 245, 1901—Tatemalis; cf. Griscom, Bull. Mus. Comp. Zool., **75**, p. 418 (in text), 1934 (crit.).

*Range*.—Southwestern portion of Mexican plateau, from southern Sinaloa through Tepic and Jalisco to Michoacan (Uruapam).

### *Aimophila rufescens subvespera* Griscom.<sup>3</sup> GUERRERO SPARROW.

*Aimophila rufescens subvespera* Griscom, Bull. Mus. Comp. Zool., **75**, p. 418, Jan., 1934—Chilpancingo, Guerrero, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

<sup>1</sup> According to van Rossem, the identity of *A. cahooni* with *A. r. mcleodii* is not quite established beyond doubt.

<sup>2</sup> *Aimophila rufescens pallida* Nelson and Palmer, judging from the few specimens on hand, is very close to *A. r. mcleodii*, but browner above with more chestnut on the pileum, and seems to have a stouter, larger bill. Griscom considers it a good form, but questions the possibility of recognizing *sinaloa*, which was based on a single example from the lowlands of Sinaloa, probably a straggler from the pine forests.

<sup>3</sup> *Aimophila rufescens subvespera* Griscom: Size about the same as *A. r. pallida*, hence larger than *A. r. rufescens*; in fresh plumage paler and duller than *rufescens*, grayer and browner, less rufous on back and tail; lateral crown-stripes more rufous,

*Aimophila rufescens rufescens* (not *Pipilo rufescens* Swainson) Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 402, 1928—Tapanatepec, Oaxaca.

*Range*.—Southwestern Mexico, on the Pacific slope of the states of Guerrero (Chilpancingo) and Oaxaca (Tapanatepec).

**\**Aimophila rufescens rufescens* (Swainson). RUSTY SPARROW.**

*Pipilo rufescens* Swainson, Phil. Mag., (n.s.), 1, No. 6, p. 434, June, 1827—"Temiscaltepec" [=Temascaltepec], Mexico (type in Bullock Collection, now in University Museum, Cambridge, Eng.).

*Aimophila rufescens* Swainson, Anim. Menag., p. 315, Dec. 31, 1837—Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—temperate region of Vera Cruz (between 600 and 1,500 metr. elev.); Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 145, 1886—Jalapa, Vera Cruz; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 212, 1890—Orizaba, Vera Cruz; Nelson and Palmer, Auk, 11, p. 44 (in text), 1894—Temascaltepec, Jalapa, and city of Orizaba, Mexico (crit.); Chapman, Bull. Amer. Mus. N. H., 10, p. 29, 1898—Jalapa, Vera Cruz (habits).

*Embernagra pyrgilotides* Lafresnaye, Rev. Zool., 2, p. 97, 1839—Mexico (type in coll. of C. Brelay, Bordeaux).

*Geospizopsis melanotis* Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, No. 20, p. 955, May, 1856—Mexico (descr. of young); Sclater, Proc. Zool. Soc. Lond., 24, p. 306, 1856—southern Mexico (crit.).<sup>1</sup>

*Haemophila rufescens* Sclater, Proc. Zool. Soc. Lond., 26, p. 98, 1858—southern Mexico; idem, l.c., 27, p. 365, 1859—Jalapa, Vera Cruz; (?)idem, l.c., 27, p. 380, 1859—Juquila and Villa Alta, northern Oaxaca; idem, Cat. Coll. Amer. Bds., p. 118, 1862—part, spec. c-f, Orizaba and (?)g, Oaxaca; Dugès, La Nature, 1, p. 140, 1868—Guanajuato; (?)Lawrence, Bull. U. S. Nat. Mus., 4, p. 22, 1876—Guichicovi, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 394, pl. 26, fig. 2, 1886—part, Mexican localities and San Gerónimo, Guatemala; Sharpe, Cat. Bds. Brit. Mus., 12, p. 725, 1888—part, spec. a-k, Mexico (Orizaba, Jalapa) and Guatemala (Vera Paz); Salvin and Godman, Ibis, 1892, p. 326—Matagalpa, Nicaragua (crit.); Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Coatepec, Vera Cruz.

*Aimophila rufescens rufescens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 243, 1901—part, Mexico and southwards through Guatemala to El Salvador; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 485, 1927—Presidio, Vera Cruz; Griscom, Bull. Amer. Mus. N. H., 64, p. 360, 1932—

very nearly as pale as in *pallida*, but with some black intermixed, and the grayish median crown-stripe better pronounced. Wing (males), 73–76.

Griscom, when describing this form, had an ample series to work with. Two specimens from the type locality are not very different from *pallida*, but they are not in very good plumage.

<sup>1</sup> According to Sclater, the type—the only specimen obtained by Auguste Sallé in Vera Cruz (vicinity of Córdoba or near Orizaba)—was an immature bird with imperfect wings. Although Sclater (Proc. Zool. Soc. Lond., 26, p. 98, 1858) confesses his inability to distinguish between *A. r. rufescens* and *Plagiospiza superciliosa* in juvenile plumage, Bonaparte's description seems to point to the first-named species. I do not know what became of the type specimen.

Guatemala (Secanquim, Finca Concepción, La Primavera); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 342, 1932—San Juancito, Honduras.

*Range*.—Chiefly Arid Temperate zone of southeastern Mexico (in states of San Luis Potosí, Guanajuato, Mexico, Morelos, Vera Cruz, (?) northern Oaxaca,<sup>1</sup> and Chiapas) and south through the central parts of Guatemala (Huehuetenango, El Quiché, Alta Vera Paz, and Baja Vera Paz) to the highlands of El Salvador (San Salvador, etc.), Honduras (San Juancito), and northern Nicaragua (Matagalpa).<sup>2</sup>

3: Guatemala (8 miles east of Salamá, Baja Vera Paz, 2; "Vera Paz," 1).

***Aimophila rufescens pectoralis* Dickey and van Rossem.<sup>3</sup> SAN MIGUEL RUSTY SPARROW.**

*Aimophila rufescens pectoralis* Dickey and van Rossem, Proc. Biol. Soc. Wash., 40, p. 6, Jan. 8, 1927—Volcan San Miguel, El Salvador (type in coll. of Donald R. Dickey, Pasadena).

*Range*.—Grass and lava slopes of Volcan San Miguel, El Salvador (above 3,000 ft.).

**\**Aimophila rufescens gigas* Griscom.<sup>4</sup> GREATER RUSTY SPARROW.**

*Aimophila rufescens gigas* Griscom, Amer. Mus. Novit., 438, p. 9, Dec. 15, 1930—Nebaj, fifty miles north of Quiché, Guatemala (type in Dwight Collec-

<sup>1</sup> Birds from northern Oaxaca (Juquila, Villa Alta, Guichicovi) need re-examination. They may be referable to *A. r. subvespera*.

<sup>2</sup> In the absence of proper material, the southward extension of the range has been adapted from published records. While Dickey and van Rossem noticed slight differences in El Salvador birds, Griscom pronounces specimens from the Coban district of Guatemala and others from Nicaragua to be inseparable from Mexican skins. Two from Coban, the only ones we have seen, appear to us indeed exactly like a series from Vera Cruz. Birds from Huehuetenango and northern Quiché are stated by Griscom to approach *A. r. gigas*.

<sup>3</sup> *Aimophila rufescens pectoralis* Dickey and van Rossem: Similar to *A. r. rufescens*, but under parts grayer, particularly on chest, flanks, and under tail coverts; throat and median under parts whiter; pectoral band darker and much more pronounced; wing and tail slightly longer. Wing,  $77\frac{1}{2}$ – $79\frac{1}{2}$ , (female) 72–74; tail, 84–87, (female) 78–78½.

This form, which we have not seen, is stated to be restricted to the Volcan San Miguel, in eastern El Salvador, while birds from other parts of that country are referred to typical *rufescens* both by the describers and by Griscom. It resembles *A. r. gigas* in size, but differs by more grayish under parts, especially on the breast, whereas from *A. r. hypaethrus*, of Costa Rica, it would seem to be separable by much more grayish breast. Direct comparison with the Costa Rican form is, however, imperative.

<sup>4</sup> *Aimophila rufescens gigas* Griscom: Similar to *A. r. rufescens*, but decidedly larger; upper parts paler, less rufescent; the hind neck more grayish; sides and flanks very slightly more grayish, less tinged with buffy. Wing (males), 76–80; tail, 83–85.

While separable from *rufescens* by larger size, this race is evidently very close to *A. r. pectoralis*, of eastern Salvador, and adequate material of both forms in strictly comparable plumage may yet show them to be identical. Griscom does not indicate in what way *gigas* differs from *pectoralis*. This author mentions, on the other hand, that certain individuals from northwestern Guatemala are intermediate to *rufescens*.

tion, now in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., **64**, p. 361, 1932—Pacific Cordillera of Guatemala (Momostenango, Chichicastenango, Nebaj, Antigua, La Montañita, San Lucas, Panajachel, Lake Amatitlan).

*Haemophila rufescens* (not *Pipilo rufescens* Swainson) Sclater and Salvin, Ibis, 1860, p. 34—Dueñas, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 118, 1862—part, spec. a, b, Guatemala (Dueñas, Volcan de Fuego); Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 394, 1886—part, Guatemala (Dueñas, Quezaltenango, Carrizal); Sharpe, Cat. Bds. Brit. Mus., **12**, p. 725, 1888—part, spec. l-p, Dueñas and Volcan de Fuego, Guatemala.

*Aimophila rufescens rufescens* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 243, 1901—Guatemala (in part).

*Aimophila rufescens* Dearborn, Field Mus. Nat. Hist., Orn. Ser., **1**, p. 116, 1907—Lake Atitlan and below Tecpam, Guatemala.

*Range*.—Pacific Cordillera of Guatemala.

5: Guatemala (near Tecpam, 1; Tecpam, 1; Lake Atitlan, 3).

### *Aimophila rufescens discolor* Ridgway.<sup>1</sup> LESSER RUSTY SPARROW.

*Aimophila rufescens discolor* Ridgway, Proc. U. S. Nat. Mus., **10**, p. 587 (in text), 1887—Segovia River, Honduras (type in U. S. National Museum); Bangs and Peck, Proc. Biol. Soc. Wash., **21**, p. 46, 1908—Ycacos Lagoon, British Honduras (crit.); Griscom, Bull. Amer. Mus. N. H., **64**, p. 360, 1932—Poctun, Petén, Guatemala.

*Haemophila rufescens* (not *Pipilo rufescens* Swainson) Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 394, 1886—part, Poctun, Petén (crit.); Sharpe, Cat. Bds. Brit. Mus., **12**, p. 725, 1888—part, spec. q, pine ridge of Poctun.

*Aimophila rufescens* (?) Ridgway, Proc. U. S. Nat. Mus., **10**, p. 587, 1887—Segovia River, Honduras.

*Aimophila rufescens rufescens* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 243, 1901—part, Guatemala (Poctun, Petén) and Honduras (Segovia River); Austin, Bull. Mus. Comp. Zool., **69**, p. 390, 1929—Augustine, British Honduras.

*Range*.—Pine forests of the tropical lowlands of British Honduras (Ycacos Lagoon, Augustine), eastern Guatemala (Poctun, Petén), and Honduras (Segovia River).

<sup>1</sup> *Aimophila rufescens discolor* Ridgway: Differs, according to Bangs, from *A. r. rufescens* by shorter wings and tail; heavier bill; darker gray sides of the head; and paler (less brownish) breast and flanks. Wing, 66–68, (female) 63; tail, 68–69, (female) 66; bill, 16½–17.

Birds from the lowlands of British Honduras and Petén apparently constitute a recognizable race characterized by small size, relatively stout bill, and certain details of coloration. It seems, however, very doubtful if the name *discolor* is properly applicable. The original specimens from the Segovia River in southeastern Honduras are larger, and their extremely worn condition makes proper comparison impossible.

***Aimophila rufescens hypaethrus* Bangs.<sup>1</sup> COSTA RICAN RUSTY SPARROW.**

*Aimophila rufescens hypaethrus* Bangs, Proc. Biol. Soc. Wash., 22, p. 37, March, 1909—Cerro Santa Maria, Costa Rica (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 383, 1930); Carriker, Ann. Carnegie Mus., 6, p. 909, 1910—Costa Rica (Cerro de Santa Maria, Tenorio, Miravalles).

*Haemophila rufescens* (not *Pipilo rufescens* Swainson) Underwood, Ibis, 1896, p. 436—Miravalles, Costa Rica.

*Aimophila rufescens rufescens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 673, 1901—part, Miravalles, Costa Rica.

*Range*.—Northwestern Costa Rica north of the Gulf of Nicoya.

**\**Aimophila ruficeps ruficeps* (Cassin). RUFOUS-CROWNED SPARROW.**

*Ammodromus ruficeps* Cassin, Proc. Acad. Nat. Sci. Phila., 6, No. 5, "October," p. 184, pub. Dec. 31, 1852—Calaveras River [east of Stockton], California (cotypes in the Academy of Natural Sciences, Philadelphia, and in U. S. National Museum; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 31, 1899); idem, Illust. Bds. Calif., Texas, etc., p. 135, pl. 20, 1854—Calaveras River.

*Peucaea ruficeps* Sharpe, Cat. Bds. Brit. Mus., 12, p. 712, 1888—Nicasio, California.

*Aimophila ruficeps ruficeps* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 246, 1901—part, California (in part).

*Range*.—Upper Austral zone of California west of the Sierra Nevada from Sonoma, Solano, Sutter, and Placer counties south to Kern County.

6: California (Nicasio, 4; Pasadena, 1; Milpitas Hills, 1).

***Aimophila ruficeps obscura* Dickey and van Rossem.<sup>2</sup> SANTA CRUZ SPARROW.**

*Aimophila obscura* Dickey and van Rossem, Condor, 25, p. 128, July 28, 1923—Prisoner's Harbor, Santa Cruz Island, California (type in coll. of Donald R. Dickey, Pasadena).

*Aimophila ruficeps ruficeps* (not *Ammodromus ruficeps* Cassin) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 246, 1901—part, Santa Catalina Island.

<sup>1</sup> *Aimophila rufescens hypaethrus* Bangs: Nearest to *A. r. rufescens*, but with larger bill; upper parts distinctly darker; lateral crown-stripes much more dusky; shaft-streaks on back and scapulars much broader and more conspicuous. From *A. r. discolor* it may be distinguished by larger size, darker upper surface, and much less grayish sides of head, breast, and flanks. Wing, 72–77, (female) 69–71; tail, 74–78, (female) 75; bill, 17–18.

Four specimens from Miravalles examined.

<sup>2</sup> *Aimophila ruficeps obscura* Dickey and van Rossem: Differs from *A. r. ruficeps* and *A. r. canescens* by darker and less rufescent coloration with the central streaking of the dorsal feathers much darker and less rusty; heavier maxillary streaks; heavier and basally more swollen bill; on average slightly longer and heavier tarsi and feet.

*Range*.—Santa Cruz Island and probably Santa Catalina and Santa Rosa Islands, California.

**\**Aimophila ruficeps canescens* Todd.<sup>1</sup> ASHY SPARROW.**

*Aimophila ruficeps canescens* Todd, Condor, **24**, p. 126, July 29, 1922—San Diego, California (type in Carnegie Museum, Pittsburgh); Grinnell, Univ. Calif. Pub. Zool., **32**, p. 173, 1928—Tecate, Lower California.

*Aimophila ruficeps ruficeps* (not *Ammodromus ruficeps* Cassin) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 246, 1901—part, California (in part).

*Range*.—San Diego district of southern California from Ventura County south across the Mexican boundary into extreme northern Lower California (Tecate).

1: California (San Diego, 1).

***Aimophila ruficeps lambi* Grinnell.<sup>2</sup> CAPE COLNETT SPARROW.**

*Aimophila ruficeps lambi* Grinnell, Auk, **43**, p. 244, April 7, 1926—Colnett, lat. 31°, Lower California (type in Museum of Vertebrate Zoology, Berkeley); idem, Univ. Calif. Pub. Zool., **32**, p. 173, 1928—northern Lower California.

*Aimophila ruficeps ruficeps* (not *Ammodromus ruficeps* Cassin) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 246, 1901—part, Lower California.

*Range*.—Northern Lower California, west of the Colorado desert from lat. 30° 30' nearly to the United States boundary.

**\**Aimophila ruficeps sororia* Ridgway. LAGUNA SPARROW.**

*Aimophila ruficeps sororia* Ridgway, Auk, **15**, p. 226, July, 1898—Victoria Mountains, Lower California, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., **50**, Part 1, p. 248, 1901—southern Lower California (monog.); Brewster, Bull. Mus. Comp. Zool., **41**, p. 148, 1902—Cape district of Lower California; Grinnell, Univ. Calif. Pub. Zool., **32**, p. 174, 1928—Lower California.

*Peucaea ruficeps boucardi* (not *Zonotrichia boucardi* Selater) Belding, Proc. U. S. Nat. Mus., **6**, p. 348, 1883—Victoria Mountains; Bryant, Proc. Calif. Acad. Sci., (2), **2**, p. 302, 1889—Victoria Mountains and (?) llanos de San Julian.

*Range*.—Mountains of the Cape district of Lower California.<sup>3</sup>

4: Lower California (El Sauz, 4).

<sup>1</sup> *Aimophila ruficeps canescens* Todd: Similar to *A. r. ruficeps*, but with longer wings and tail, and under parts less buffy, more grayish in tone; similar also to *A. r. sororia*, but darker above, and darker, more grayish below. Wing (male), 64–67; tail, 67–70; bill, 11–12.

<sup>2</sup> *Aimophila ruficeps lambi* Grinnell: Generally similar to *A. r. canescens*, but decidedly darker, less ashy brown, more slaty; light edging to upper parts scantier and darker; sides of head, neck, and body, and dark band across chest darker; wings and tail darker, more slaty brown; bill and feet slaty rather than flesh-color. Size and proportions about the same as in *A. r. ruficeps*; the bill smaller than in *A. r. sororia* and *A. r. obscura*.

<sup>3</sup> The record from San Julian (near Comondú) belongs doubtfully to the present form, the specimen in question being no longer extant.

**\**Aimophila ruficeps simulans* van Rossem.<sup>1</sup> SONORA RUFOUS-CROWNED SPARROW.**

*Aimophila ruficeps simulans* van Rossem, Bull. Mus. Comp. Zool., 77, p. 486, Dec., 1934—Mina Abundancia, Sonora (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Aimophila ruficeps scottii* (not of Sennett) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 248, 1901—part, Durango; Miller, Bull. Amer. Mus. N. H., 22, p. 173, 1906—Rio Sestín, Arroyo del Buey, and Cienaga Corales, northwestern Durango.

**Range.**—Mountains of southern Sonora (Mina Abundancia), southern Chihuahua (Bravo, Jesus Maria), and south to northwestern Durango (Rio Sestín, Arroyo del Buey, Cienaga Corales, Durango City) and Nayarit.

1: Mexico (Mina Abundancia, Sonora, 1).

**\**Aimophila ruficeps scottii* (Sennett). SCOTT'S SPARROW.**

*Peucaea ruficeps scottii* Sennett, Auk, 5, p. 42, January, 1888—Pinal County, Arizona (cotypes in the American Museum of Natural History, New York).

[*Peucaea ruficeps*] subsp. *a* *Peucaea homochlamys* Sharpe, Cat. Bds. Brit. Mus., 12, p. 713, 1888—Santa Rita and Santa Catalina Mts., Arizona (type in British Museum).

*Peucaea ruficeps boucardi* (not *Zonotrichia boucardi* Sclater) Brewster, Bull. Nutt. Orn. Cl., 7, p. 196, 1882—Cave Creek, Chiricahua Mts., and Santa Rita Mts., Arizona, and Fort Bayard, New Mexico; Scott, Auk, 3, p. 83, 1886—Santa Catalina Mts., Arizona (habits, nest, and eggs); Scott and Allen, Auk, 4, p. 203, 1887—Santa Catalina Mts., Arizona (plumages); Allen, Bull. Amer. Mus. N. H., 5, p. 39, 1893—Bisbee, Arizona, and Bavispe River, Sonora.

*Aimophila ruficeps scottii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 248, 1901—northern Chihuahua (Casas Grandes), Sonora, Arizona, New Mexico, and El Paso County, Texas (excl. of Durango; monog.); Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 328, 1929—southern Arizona; van Rossem, Trans. San Diego Soc. N. H., 6, p. 299, 1931—Saric, Sonora; idem, Bull. Mus. Comp. Zool., 77, p. 486, 1934—Oposura, Sonora.

**Range.**—Mountains of southern Arizona, New Mexico, southeastern Colorado, and southwestern Texas, and the adjoining districts of northern Sonora (Bavispe River, Oposura, Saric) and Chihuahua (Casas Grandes).

<sup>1</sup> *Aimophila ruficeps simulans* van Rossem: Almost exactly similar in coloration and size to *A. r. sororia*, but bill just as small as in *A. r. scottii*. Differs from the latter in redder dorsal coloration, whiter under parts, smaller size, and proportionately, as well as actually, shorter tail. Wing (male), 60–64 (against 65–71); tail, 62–67 (against 67–75).

Nayarit specimens are, according to van Rossem, intermediate to *A. r. fusca*.



31: Arizona (Cochi Canyon, 1; Calabasas, 2; Chiricahua Mountains, 1; Huachuca Mountains, 15; Paradise, 1); Texas (Fort Davis, 1); Mexico (Babicora, Chihuahua, 6; Cerro Blanco Mines, Sonora, 4).

**\**Aimophila ruficeps eremoeca* (Brown). ROCK SPARROW.**

*Peucaea ruficeps eremoeca* N. C. Brown, Bull. Nutt. Orn. Cl., 7, p. 26, Jan., 1882—Boerne, Kendall County, Texas (type in coll. of N. C. Brown).

*Peucaea boucardi* (not *Zonotrichia boucardi* Sclater) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 391, 1886—part, Texas.

*Peucaea ruficeps boucardi* Sennett, Auk, 5, p. 42, 1888—part, Texas (Kendall and Presidio counties).

*Aimophila ruficeps eremoeca* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 251, 1901—Texas, in winter to Mexico (monog.); Phillips, Auk, 28, p. 88, 1911—Guiaves, Tamaulipas.

*Range*.—Breeds in the Wichita Mountains, Oklahoma, and from Cooke County, Texas, southwest to the Pecos River; winters in Mexico south to Tamaulipas (Guiaves), Puebla (Chachapa), and Vera Cruz (Maltrata).

4: Texas (Austin, 1; Ingram, 2; Kerrville, 1).

***Aimophila ruficeps boucardi* (Sclater). BOUCARD'S SPARROW.**

*Zonotrichia boucardi* Sclater, Proc. Zool. Soc. Lond., 1867, p. 1, pl. 1—Orizaba, Vera Cruz, and La Puebla, Puebla, Mexico (type, from La Puebla, in coll. of P. L. Sclater, now in British Museum).

*Peucaea boucardi* Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 323—Orizaba, Atlixco, and La Puebla; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 391, 1886—part, Vera Cruz (Puente Colorado, Orizaba) and Puebla, Mexico.

*Peucaea ruficeps* var. *boucardi* Lawrence, Bull. U. S. Nat. Mus., 4, p. 21, 1876—Puente Colorado, Puebla.

*Peucaea ruficeps boucardi* Sennett, Auk, 5, p. 42, 1888—part, eastern Mexico (heights of Vera Cruz, Orizaba, Puebla, and City of Mexico) (crit.).

*Peucaea ruficeps* (not *Ammodromus ruficeps* Cassin) Sumichrast, Mem. Bost. Soc. N. H., 1, p. 552, 1869—temperate zone of Vera Cruz.

*Aimophila ruficeps boucardi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 252, 1901—eastern portion of Mexican plateau (excl. of Guerrero; monog.); Phillips, Auk, 28, p. 88, 1911—Tamaulipas (Rampahuila, Carricitos, Guiaves, Montelunga, Yerba Buena, Galindo, Realito).

[*Peucaea ruficeps*] subsp.  $\beta$  *Peucaea boucardi* Sharpe, Cat. Bds. Brit. Mus., 12, p. 714, 1888—part, spec. a-f, La Puebla and Orizaba, Mexico.

*Range*.—Eastern parts of Mexican highlands from southern Tamaulipas and the adjacent parts of Coahuila and San Luis Potosí south to Mexico, Puebla, and Vera Cruz.

***Aimophila ruficeps australis* (Nelson).<sup>1</sup> OAXACA SPARROW.**

*Peucaea ruficeps australis* Nelson, Auk, 14, p. 63, Jan., 1897—city of Oaxaca, Oaxaca, Mexico (type in U. S. National Museum).

*Peucaea ruficeps* (not *Ammodromus ruficeps* Cassin) Sclater, Proc. Zool. Soc. Lond., 27, p. 380, 1859—Oaxaca.

*Peucaea boucardi* (not *Zonotrichia boucardi* Sclater) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 391, 1886—part, Oaxaca.

*Aimophila ruficeps australis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 250, 1901—Oaxaca (monog.).

**Range.**—Southern extremity of Mexican plateau in State of Oaxaca (city of Oaxaca; near Totolopa).

***Aimophila ruficeps fusca* (Nelson). ETZATLAN SPARROW.**

*Peucaea ruficeps fusca* Nelson, Auk, 14, p. 62, Jan., 1897—Etzatlán, Jalisco, Mexico (type in U. S. National Museum).

*Aimophila ruficeps fusca* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 250, 1901—southwestern Mexico (monog.); Griscom, Bull. Mus. Comp. Zool., 75, p. 418, 1934—Chilpancingo, Guerrero (crit.).

**Range.**—Southwestern Mexico, from Jalisco to Guerrero.

**\**Aimophila aestivalis bachmanii* (Audubon). BACHMAN'S SPARROW.**

*Fringilla bachmanii* Audubon, Bds. Amer. (folio), 2, pl. 165, 1833; idem, Orn. Biog., 2, p. 366, 1834—Pine Barrens near Charleston, South Carolina (type in U. S. National Museum).

*Peucaea illinoensis* Ridgway, Bull. Nutt. Orn. Cl., 4, p. 219, Oct., 1879—southern Illinois and Cooke County, Texas (type, from Mount Carmel, Wabash County, Illinois, in U. S. National Museum); idem, l.c., 5, p. 52, 1880 (crit.).

*Peucaea illinoisensis* Langdon, Journ. Cinc. Soc. N. H., 4, p. 339, 1881—Bardstown, Kentucky.

[*Peucaea aestivalis*] subsp. *a* *Peucaea bachmani* Sharpe, Cat. Bds. Brit. Mus., 12, p. 710, 1888 (range).

*Aimophila aestivalis bachmanii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 256, 1901 (monog., full bibliog.).

**Range.**—Breeds in the United States from central Illinois (locally to southeastern Iowa), southern Indiana and Ohio, extreme southwestern Pennsylvania, and central Virginia south to central Texas, Louisiana, Mississippi, Alabama, and northwestern Florida; winters from southern North Carolina southward into Florida; accidental near Washington, D.C., New Jersey, and Ontario.

<sup>1</sup> An imperfectly known race, of which more material is badly needed. As emphasized by Griscom, characters and ranges of the three Mexican races cannot be worked out satisfactorily until an adequate series of topotypical *boucardi* from Puebla becomes available.

16: Illinois (Grand Chain, 3); Kentucky (Russellville, 1); South Carolina (Charleston, 4; Mount Pleasant, 1); Alabama (Elmore County, 1); Texas (Bowie County, 1); Mississippi (Holly Springs, 1); Florida (Gainesville, 4).

**\**Aimophila aestivalis aestivalis* (Lichtenstein). PINE-WOOD SPARROW.**

*Fringilla aestivalis* Lichtenstein, Verz. Doubl. Berliner Mus., p. 25, 1823—Georgia (type in Berlin Museum).<sup>1</sup>

*Peucaea aestivalis* Cabanis, Mus. Hein., 1, p. 132 (footnote), 1851 (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 709, 1888 (monog.).

*Aimophila aestivalis aestivalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 254, 1901 (monog., full bibliog.).

*Range*.—Breeds in the southeastern United States from southeastern Georgia to the Florida Peninsula; winters in the southern parts of Florida.

14: Georgia (St. Mary's, Camden County, 1); Florida (Nassau County, 1; Rosewood, 1; Gainesville, 2; Dunedin, 1; Tarpon Springs, 4; West Jupiter, 2; Palm Beach, 1; Whitfield, 1).

**\**Aimophila botterii* (Sclater).<sup>2</sup> BOTTERI'S SPARROW.**

*Zonotrichia botterii* Sclater, Proc. Zool. Soc. Lond., 25, "1857," p. 214, pub. Jan. 12, 1858—vicinity of Orizaba, Vera Cruz, Mexico (type in coll. of P. L. Sclater, now in British Museum).

*Peucaea botterii* Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 323—Orizaba and Atlixco, Puebla (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 389, 1886—part, Texas, Arizona, and Mexico (plains of Colima; Los Nogales, Sonora; Guanajuato; Orizaba; Atlixco; Putla); Griscom and Crosby, Auk, 43, p. 25, 1926—Brownsville, Texas.

*Peucaea cassinii* (not *Zonotrichia cassinii* Woodhouse) Baird, Rep. Pacif. R. R. Surv., 9, p. 485, 1858—part, Los Nogales, Sonora (crit.); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—Valley of Orizaba, Vera Cruz.

*Coturniculus mexicanus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 474, May, 1867—plains of Colima, western Mexico (type in U. S. National Museum).

*Peucaea aestivalis* var. *arizonae* Ridgway, Amer. Nat., 7, p. 616, Oct., 1873, Los Nogales, Sonora (type in U. S. National Museum).

<sup>1</sup> The type needs re-examination, since it might possibly have been a migratory individual of *A. a. bachmanii*. Lichtenstein's description, "abdomine toto cinereo," points, however, to the breeding race.

<sup>2</sup> *Aimophila botterii* (Sclater) is almost certainly conspecific with *A. aestivalis*, but neither time nor the material at hand allow me to investigate its relationship, and the problem must be left to others for further study. While it is fairly established that birds from Arizona (where the species has not been seen in recent years), the lower Rio Grande, and southern Mexico are the same, the breeding range of *A. botterii* is quite incompletely known.

*Peucca* [sic] *aestivalis* var. *botteri* Lawrence, Mem. Bost. Soc. N. H., 2, p. 277, 1874—plains of Colima.

*Peucaea arizonae* Ridgway, Proc. U. S. Nat. Mus., 1, p. 127, 1878—Fort Brown, Texas (crit.); Merrill, l.c., 1, p. 127, 1878—Fort Brown (habits, eggs descr.); Scott, Auk, 2, p. 226, 1885—Santa Cruz Valley, Arizona; Rhoads, Proc. Acad. Nat. Sci. Phila., 1892, p. 121—Tucson and Oracle, Arizona (habits, song).

*Peucaea mexicana* Ridgway, Proc. U. S. Nat. Mus., 8, p. 98, 1885—Fort Brown, Texas, and Guanajuato (crit.).

*Peucaea aestivalis* (not *Fringilla aestivalis* Lichtenstein) Sharpe, Cat. Bds. Brit. Mus., 12, p. 709, 1888—part, spec. f, Putla, Oaxaca.

[*Peucaea aestivalis*] subsp.  $\beta$  *Peucaea arizonae* Sharpe, Cat. Bds. Brit. Mus., 12, p. 710, 1888—Crittenden, Arizona.

[*Peucaea aestivalis*] subsp.  $\gamma$  *Peucaea botterii* Sharpe, Cat. Bds. Brit. Mus., 12, p. 711, 1888—Mexico (Orizaba, Atlixco).

*Aimophila botterii botterii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 257, 1901 (monog.); Phillips, Auk, 28, pp. 88, 1911—Matamoros, Tamaulipas (Aug. 13–Sept. 13); Miller and Griscom, Amer. Mus. Novit., 184, p. 3, 1925 (crit.); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 402, 1928—Chivelá and Cacoprieto, Oaxaca (crit.); Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 328, 1929—southern Arizona (not seen); van Rossem, Trans. San Diego Soc. N. H., 6, p. 300, 1931—Guircocoba, Sonora; Griscom, Bull. Mus. Comp. Zool., 75, p. 419, 1934—Chilpancingo, Guerrero.

*Range*.—Highlands of Mexico, from the Pacific side of Chiapas (Ocuilapa, Ocozucuantla, Jiquipilas) through Oaxaca, Vera Cruz (Orizaba), Puebla (Atlixco), Guerrero, and Morelos to Guanajuato and Colima; also recorded from the lower Rio Grande Valley (Matamoros) and southern Arizona.<sup>1</sup>

6: Arizona (Fairbank, 2; Calabasas, 2; "southern Arizona," 1); Texas (Corpus Christi, 1).

### *Aimophila petenica*<sup>2</sup> *petenica* (Salvin). PETÉN SPARROW.

*Ammodromus petenicus* Salvin, Proc. Zool. Soc. Lond., 1863, p. 189—plains of Petén, Guatemala (type in Salvin-Godman Collection, now in British

<sup>1</sup> A nearly allied, yet unnamed race, of which but a single example from Antigua exists in collections, lives in the Pacific Cordillera of Guatemala. It has been discussed by Miller and Griscom (Amer. Mus. Novit., 184, p. 3, 1925), Griscom (Bull. Amer. Mus. N. H., 64, p. 362, 1932), and van Tyne (Univ. Mich. Mus. Zool., Misc. Publ., 27, p. 42, 1935). The last-named author calls attention to its similarity to *A. petenica vulcanica*, a fact that is apt to cast serious doubts on the specific distinctness of the two groups.

<sup>2</sup> *Aimophila petenica*, a much discussed bird, is considered by van Tyne as specifically different from *A. botterii*. Even in juvenile plumage, it is distinguished by smaller size (wing, 54–55); darker coloration above; the scapulars being broadly black, narrowly edged with dark chestnut, the wing coverts narrowly edged with buff; dusky (not light colored) lores; spotted chin and malar region. Van Tyne found the type of *A. sartorii* and examples from northern Chiapas (Palenque) to be inseparable from Petén birds. Wing of adult males, 56–57. We have no material.

Museum); idem, Ibis, 1866, p. 193—Petén; Ridgway, Ibis, 1884, p. 44 (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 694, 1888—pine ridge of Poctun, Guatemala.

*Coturniculus peniculus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 385, pl. 28, fig. 2, 1886—pine ridge of Poctun, near Petén.

[*Peucaea aestivalis*] var. *botterii* (not *Zonotrichia botterii* Sclater) Ridgway, in Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 2, p. 38, 1874—part, Huatusco, near Mirador, Vera Cruz.

*Peucaea botterii* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 389, 1886—part, Mirador, Vera Cruz.

*Aimophila sartorii* Ridgway, Auk, 15, p. 227, July, 1898—part, Huatusco, near Mirador, Vera Cruz (type in U. S. National Museum).

*Aimophila botterii sartorii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 259, 1901—part, Vera Cruz (Huatusco) and Chiapas (Palenque); Miller and Griscom, Amer. Mus. Novit., 184, p. 3, 1925 (crit.).

*Aimophila botterii petenica* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 260, 1901—Petén, Guatemala; Miller and Griscom, Amer. Mus. Novit., 184, p. 3, 1925 (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 361, 1932—Petén.

*Aimophila petenica petenica* van Tyne, Univ. Mich. Mus. Zool., Misc. Pub., 27, pp. 41, 42, 1935—La Libertad, Petén (crit., range).

**Range.**—Pine ridges of the Caribbean lowlands of southeastern Mexico, in states of Vera Cruz (Huatusco, near Mirador; Jalapa) and Chiapas (Palenque), and Guatemala (Poctun and La Libertad, Petén).<sup>1</sup>

### ***Aimophila petenica vulcanica* Miller and Griscom.<sup>2</sup> NICARAGUAN SPARROW.**

*Aimophila botterii vulcanica* Miller and Griscom, Amer. Mus. Novit., 184, p. 2, Sept. 24, 1925—Volcan Viejo, Nicaragua (type in the American Museum of Natural History, New York).

*Aimophila petenica vulcanica* van Tyne, Univ. Mich. Mus. Zool., Misc. Publ., 27, p. 42 (in text), 1935—Nicaragua (Volcan de Chinandega) and Costa Rica (Miravalles) (crit.).

*Aimophila sartorii* Ridgway, Auk, 15, p. 227, 1898—part, Nicaragua.

<sup>1</sup> The range of *A. p. petenica*, in opposition to that of *A. botterii*, seems to be confined to the pine ridges in the Caribbean lowlands. In Vera Cruz, it has been found at Huatusco (near Mirador), while higher up, in the Valley of Orizaba, *A. botterii* is said to be resident. In the State of Chiapas, the present form has been obtained in the northern lowlands at Palenque, whereas on the Pacific side, at various localities, *A. botterii* was met with. More exact information about the breeding ranges of these finches is urgently needed.

<sup>2</sup> *Aimophila petenica vulcanica* Miller and Griscom: Similar to *A. p. petenica* in dark dorsal coloration, but rufescent edgings even broader, conspicuous on wing coverts and secondaries; also darker below, more intensely smoke-gray and brown, less buffy; size larger (wing of males, 60–65).

In spite of its dimensions, which are just as large as those of *A. botterii*, van Tyne ranks the Nicaraguan Sparrow with *A. petenica*, though even in coloration it seems to exhibit a certain approach to *A. botterii*. There is no doubt that we have yet to learn a good deal about the relationship of these birds. Two topotypes recently examined seem to bear out van Tyne's conclusion.

*Aimophila botterii sartorii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 259, 1901—part, El Volcan, Chinandega, Nicaragua; Carriker, Ann. Carnegie Mus., 6, p. 908, 1910—Miravalles, Costa Rica (crit.).

*Range*.—Western Nicaragua (Volcan Viejo, Chinandega) and northwestern Costa Rica (Miravalles).

**\**Aimophila cassinii* (Woodhouse).<sup>1</sup> CASSIN'S SPARROW.**

*Zonotrichia cassinii* Woodhouse, Proc. Acad. Nat. Sci. Phila., 6, No. 2, March–April, p. 60, pub. June 9, 1852—San Antonio, western Texas (type in U. S. National Museum; cf. Baird, Rep. Expl. and Surv. R. R. Pacif., 9, p. 486, 1858).

*Passerculus cassinii* Woodhouse, Rep. Sitgreave's Expl. Zuñi and Col. R., p. 85, pl. 4, 1853—near San Antonio, Texas.

*Peucaea cassinii*(i) Sennett, Bull. U. S. Geol. and Geog. Surv. Terr., 4, p. 18, 1878—Brownsville, Texas; Merrill, Proc. U. S. Nat. Mus., 1, p. 128, 1878—Fort Brown, Texas (song, nest, and eggs); Sharpe, Cat. Bds. Brit. Mus., 12, p. 712, 1888—Texas (Laredo) and Arizona (Crittenden, Tucson, Camp Lowell); Salvin and Godman, Ibis, 1889, p. 238—Nuevo León and Tamaulipas; Allen, Bull. Amer. Mus. N. H., 5, p. 39, 1893—Cochise County, Arizona (Aug. 24–Sept. 4); Griscom and Crosby, Auk, 43, p. 25, 1926—Brownsville, Texas; Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 327, 1928—southern Arizona.

*Aimophila cassinii*(i) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 253, 1901 (monog., full bibliog.); Phillips, Auk, 28, p. 88, 1911—Matamoros, Tamaulipas (Aug. 17–Nov. 25); van Rossem, Trans. San Diego Soc. N. H., 6, p. 300, 1931—Saric and Tésia, Sonora (Sept., March).

*Range*.—Breeds in the western United States from southeastern Nevada, southeastern (casually central) Colorado, and southwestern Kansas south to northern Sonora and the mouth of the Rio Grande, Texas; winters from southern Arizona to southern Sinaloa (Mazatlan), Nuevo León, and Tamaulipas.

15: Arizona (Crittenden, 1; Huachuca Siding, 1); New Mexico (Deming, 4); Texas (Corpus Christi, 6; Harlingen, 2; unspecified, 1).

***Aimophila strigiceps strigiceps* (Gould). STRIPED-HEADED SPARROW.**

*Zonotrichia strigiceps* Gould, in Darwin, Zool. Beagle, 3, Birds, p. 92, Nov., 1839—Santa Fé, Argentina (type in coll. of J. Gould, subsequently in coll. of P. L. Sclater, now in British Museum, examined); Bonaparte, Consp. Gen. Av., 1, (2), p. 479, 1850—Santa Fé; Burmeister, Journ. Orn., 8, p. 256, 1860—Paraná and Santa Fé; idem, Reise La Plata St., 2, p. 486, 1861—same localities (breeding, eggs descr.; spec. in Halle Museum examined); Sclater, Ibis, 1877, p. 47, pl. 1, fig. 2—Santa Fé (crit., fig. of

<sup>1</sup> *Aimophila cassinii* (Woodhouse) is another member of the *A. aestivalis botterii* complex, but may really be specifically distinct. Merrill claims to have discovered nest and eggs of both *A. cassinii* and *A. botterii* near Fort Brown (Brownsville), Texas, though of late neither species has been found breeding in that vicinity.

type); White, Proc. Zool. Soc. Lond., 1883, p. 38—Cosquin, Córdoba; Sharpe, Cat. Bds. Brit. Mus., 12, p. 608, 1888—Santa Fé; Sclater and Hudson, Arg. Orn., 1, p. 60, 1888—Argentina (Santa Fé, Paraná) and "Patagonia" (errore).

*Zonotrichia whitii* Sharpe, Cat. Bds. Brit. Mus., 12, p. 608, pl. 13, 1888—Cosquin, Córdoba (type in British Museum); Frenzel, Journ. Orn., 39, p. 120, 1891—near Córdoba.

*Haemophila whitii* Sclater and Hudson, Arg. Orn., 1, p. 64, 1888—near Córdoba.

*Zonotrichia whitei* Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Córdoba.

*Aimophila whitii* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 391, 1910—part, Sierra de Córdoba.

*Aimophila strigiceps* Pereyra, El Hornero, 4, p. 33, 1927—Pueblo Brugo, Entre Ríos.

*Zonotrichia strigiceps strigiceps* Hellmayr, Verh. Orn. Ges. Bay., 11, p. 189, 1912—banks of the Rio Paraná (Santa Fé, Paraná) west to Córdoba (crit. range).

*Range*.—Eastern Argentina, from the banks of the Rio Paraná (Paraná and Pueblo Brugo, Entre Ríos; Santa Fé, Santa Fé) west to Córdoba (Cosquin).<sup>1</sup>

### *Aimophila strigiceps dabbenei* (Hellmayr).<sup>2</sup> DABBENE'S

STRIPED-HEADED SPARROW.

*Zonotrichia strigiceps dabbenei* Hellmayr, Verh. Orn. Ges. Bay., 11, p. 190, July, 1912—Tapia, Tucumán, Argentina (type in Munich Museum); Dinelli, El Hornero, 1, p. 63, 1918—Tucumán (habits).

*Haemophila whitei* (not *Zonotrichia whitii* Sharpe) Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 7, 1895—Salta; idem, l.c., 12, No. 292, p. 10, 1897—Lesser, Salta.

<sup>1</sup> Birds from Córdoba (*Z. whitii*), in dimensions and coloration are identical with topotypical examples from the Rio Paraná, as we have shown in another connection (1912, pp. 187–189), the alleged differences being clearly seasonal. The type of *Z. strigiceps*, which we have since examined in the British Museum, owing to the fresh condition of its plumage (October), is more intensely colored throughout than the original example of *Z. whitii*, taken in June, which shows signs of wear and bleaching. Two July birds from Paraná, Entre Ríos, however, are still paler than those from Cosquin, instead of agreeing with the dark-colored type of *Z. strigiceps*. Wing, 63–67; tail, 68–76; bill, 12.

As to the systematic position of this species, I am now inclined to concur with Wetmore's contention that the smaller, slenderer feet are hardly important enough to separate it from *Aimophila*.

*Material examined*.—Argentina: Santa Fé, 1; Paraná, Entre Ríos, 2; Cosquin, Córdoba, 2.

<sup>2</sup> *Aimophila strigiceps dabbenei* (Hellmayr): Similar to the nominate race, but larger, with longer, heavier bill; lateral crown-stripes much darker, chestnut rather than hazel; lores and subocular region sooty blackish, forming a large dusky patch on the sides of the head. Wing, 72–75, (female) 70–71; tail, 78–85; bill, 14½–15.

*Material examined*.—Argentina: Tapia, Tucumán, 4; Lesser, Salta, 1; Arenal, Salta, 5.

*Haemophila whitii* Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 178, 1902—Tapia, Tucumán (crit.); Baer, Ornith., 12, p. 217, 1904—Tapia; Bruch, Rev. Mus. La Plata, 11, p. 255, 1904—Metan, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 43, 1905—Tapia; Hartert and Venturi, Nov. Zool., 16, p. 178, 1909—Tucumán [= Tapia] and province of Salta [= Arenal] (spec. examined).

*Aimophila whitii* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 391, 1910—part, Sierra de Tucumán, Salta, Jujuy, "Catamarca," and "La Rioja."

*Aimophila strigiceps dabbenei* Wetmore, Bull. U. S. Nat. Mus., 133, p. 424, 1926—Tapia, Tucumán (crit.).

**Range.**—Northwestern Argentina, in provinces of Jujuy, Salta, and Tucumán.<sup>1</sup>

### Genus INCASPIZA Ridgway<sup>2</sup>

*Incapiza* Ridgway, Auk, 15, p. 224, 1898—type, by orig. desig., *Haemophila pulchra* Sclater.

### *Incapiza pulchra pulchra* (Sclater).<sup>3</sup> NATION'S SPARROW.

*Haemophila pulchra* Sclater, Ibis, (5), 4, p. 259, pl. 8, 1886—Matucana, in the upper valley of the Rimac River, Dept. Lima, Peru (type in coll. of P. L. Sclater, now in British Museum, examined); Sharpe, Cat. Bds. Brit. Mus., 12, p. 729, 1888—Valley of Rimac, Peru.

<sup>1</sup> No authentic record exists for either Catamarca or La Rioja. "Chaco Central," given in the "Ornitología Argentina," signifies Chaco Salteño (fide Dabbene, in litt.).

<sup>2</sup> *Incapiza* Ridgway: Closely similar to *Aimophila*, but tail proportionately shorter; bill slenderer; maxillary tomium without any convexity in middle portion; style of coloration very different.

Although the proportionate length of the tail is less diagnostic than was supposed by the late Robert Ridgway, the birds united here under *Incapiza* constitute a natural group characterized by their peculiar coloration and somewhat differently shaped bill, and may well be kept separate.

<sup>3</sup> *Incapiza pulchra pulchra* (Sclater) is unquestionably a very close ally of *I. p. personata*, but appears to be slightly smaller, the tail especially shorter, while the bill, on the contrary, is rather stouter. It also differs in certain details of coloration. The rufous dorsal "saddle," so conspicuous a feature in *I. p. personata*, is absent, the whole back being pale earthy brown like the pileum; there is no black frontal band, the feathers of the forehead being ashy gray apically edged with pale brown; from the base of the bill there runs above the eye a light slate gray superciliary streak, widening posteriorly and merging with the gray on the sides of the neck, barely suggested in *personata*; the sides of the head and neck, as well as foreneck and chest, are purer gray, not tinged with olivaceous; the black gular patch is larger and more sharply defined posteriorly, the belly paler, more yellowish buff; the upper wing coverts and inner secondaries are lighter, cinnamonaceous rather than rufous. The extent of the white apical portion of the two lateral pairs of rectrices is the same as in *personata*, but the third pair has no white at all or merely a narrow fringe. Wing, 72–74, (female) 70; tail, 70–72, (female) 68; bill, 15–15½.

While two adults from Surco (alt. 2,050 metr.) have plain brown dorsal surface, it is somewhat significant that in the type the feathers of the mantle are tinged with cinnamonaceous along the middle portion, thus suggesting an approach to *personata*.

**Material examined.**—Peru: Matucana, 1 (the type); Surco, 2 (all in the British Museum).



*Range*.—Arid Subtropical zone of western Peru, in Dept. of Lima (Matucana and Surco).

**\**Incapeiza pulchra personata* (Salvin). RUFIOUS-BACKED SPARROW.**

*Haemophila personata* Salvin, Nov. Zool., 2, p. 8, 1895—near Cajamarca, Dept. Cajamarca, Peru (type in Salvin-Godman Collection, now in British Museum, examined).

*Incapeiza personata* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 470, 1930  
—Cullui, Marañón River, Dept. Huánuco, Peru.

*Range*.—Arid Subtropical zone of northern Peru, in depts. of Cajamarca (near Cajamarca; Baños), Libertad (Chusgon, Huamachuco; near Otuzco), and Huánuco (Cullui, Marañón River).<sup>1</sup>

2: Peru (Cullui, Marañón River, 1; mountains near Otuzco, 1).

**\**Incapeiza laeta* (Salvin).<sup>2</sup> SALVIN'S PERUVIAN SPARROW.**

*Haemophila laeta* Salvin, Nov. Zool., 2, p. 8, 1895—Cajabamba, Viña (Huamachuco), Chusgon (Huamachuco), Cajamarca, and Malca (Cajabamba), Peru (type, from Cajabamba, in Salvin-Godman Collection, now in British Museum, examined).

*Range*.—Arid Subtropical zone of northern Peru, in depts. of Cajamarca (San Marcos, Cajabamba, Malca) and Libertad (Chusgon and Viña, near Huamachuco).

1: Peru (Hacienda Limón, 1).

<sup>1</sup> Our own examples agree precisely with the series in the British Museum, including the type. Wing, 75–79, (female) 75; tail, 73–80; bill, 13–14½.

*Additional material examined*.—Peru: near Cajamarca, 3; Baños, Cajamarca, 1; Chusgon (near Huamachuco), 1.

<sup>2</sup> *Incapeiza laeta* (Salvin): Similar to *I. p. personata*, but decidedly smaller, with much slenderer (though not shorter) and bright yellow (instead of greenish yellow) bill; the black of the chin continued in a broad stripe over the middle of the throat, this black area bordered on either side by a broad buffy malar stripe; remainder of under parts distinctly bicolored, the neutral gray chest being abruptly defined against the ochraceous-buff abdomen; two lateral pairs of rectrices nearly wholly white. Wing, 65–68; tail, 59–62; bill, 13–14.

This species is so close to *I. p. personata* that one is tempted to regard it as pertaining to the same specific group. Their ranges, as far as they are known, seem, however, to preclude such an arrangement. O. T. Baron, their discoverer, obtained an adult male of *I. laeta* in February, 1894, at Chusgon (Huamachuco) at an elevation of 8,500 feet, while at the same place, though a little higher up, at 11,500 feet, an equally typical example of *I. p. personata* was secured on March 23, 1895. There is, of course, the possibility that these birds may be subject to some seasonal migrations, and that they do not actually breed together, but until such has been proved to be the case it appears advisable to maintain their specific distinctness.

*Additional material examined*.—Peru: San Marcos (alt. 2,500 metr.), Cajamarca, 1 (Nov. 24); Cajabamba (alt. 9,000 ft.), 1 (the type; Jan.); Malca (alt. 8,000 ft.), Cajabamba, 2 (April 17–19); Chusgon, Huamachuco (alt. 8,500 ft.), Libertad, 1 (February).

***Incapiza watkinsi* Chapman.<sup>1</sup> WATKINS'S SPARROW.**

*Incapiza watkinsi* Chapman, Amer. Mus. Novit., 160, p. 3, Feb., 1925—Perico, Rio Chinchipe, Dept. Cajamarca, Peru (type in the American Museum of Natural History, New York).

*Range*.—Arid Tropical zone of northern Peru (Perico, on the Rio Chinchipe, Marañón drainage, Dept. Cajamarca).

**Genus AMPHISPIZA Coues**

*Amphispiza* Coues, in U. S. Geol. Surv. Terr., Misc. Pub., 3 (Birds Northwest), p. 234, 1874—type, by orig. desig., *Emberiza bilineata* Cassin.

**\**Amphispiza bilineata bilineata* (Cassin). BLACK-THROATED SPARROW.**

*Emberiza bilineata* Cassin, Proc. Acad. Nat. Sci. Phila., 5, No. 5, Sept.–Oct., p. 104, pl. 3, pub. Dec. 7, 1850—Texas, on the Rio Grande (type in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 30, 1899).

*Amphispiza bilineata* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 367, 1886—part, Texas and Tamaulipas; Sharpe, Cat. Bds. Brit. Mus., 12, p. 628, 1888—part, spec. h–k, Texas (Laredo).

*Amphispiza bilineata bilineata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 263, 1901—part, Texas and northeastern Mexico (Tamaulipas, Nuevo León); Phillips, Auk, 28, p. 88, 1911—Tamaulipas (Matamoros, San Fernando); Friedmann, Auk, 42, p. 551, 1925—Brownsville, Texas; Griscom and Crosby, Auk, 43, p. 25, 1926—Brownsville.

*Range*.—Lower Austral zone of northern central Texas south into Coahuila, Nuevo León, and Tamaulipas, northeastern Mexico.

19: Texas (Laredo, 2; Corpus Christi, 5; Harlingen, 5; Lomita Ranch, 1); Mexico (Sabinas, Coahuila, 4; San Pedro, Nuevo León, 1; Tamaulipas, 1).

**\**Amphispiza bilineata deserticola* Ridgway. DESERT SPARROW.**

*Amphispiza bilineata deserticola* Ridgway, Auk, 15, p. 229, July, 1898—Tucson, Arizona (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 265, 1901—(monog., full bibliog.; excl. of southern Sonora); Grinnell, Univ. Calif. Pub. Zool., 32, p. 171, 1928—northern Lower Cali-

<sup>1</sup> *Incapiza watkinsi* Chapman: About the size of *I. laeta*, but with shorter tail, and resembling *I. pulchra personata* in various color-details, notably in facial pattern (small black chin-spot, laterally not bounded by a buffy malar stripe; faintly suggested grayish supercilium) and coloration of under parts. It differs, however, from both of its allies by having the middle back streaked with blackish, its ground color being, besides, snuff brown, becoming more rufescent laterally and passing into hazel on the scapulars only. The three outer tail-feathers are entirely white on the inner webs. The bill of the male, according to Chapman, is bright yellow (as in *I. laeta*), while the female has the culmen part largely dusky. Wing, 65, (female) 62; tail, 47½, (female) 45; bill, 14–15.

Of this well-marked form we have seen but a single female from Perico. We are, therefore, not in the position to say anything definite on its affinities.

fornia; Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 327, 1929—southern Arizona; van Rossem, Trans. San Diego Soc. N. H., 6, p. 221, 1930 (crit., range); idem, l.c., 6, p. 300, 1931—Sarıc and twelve miles west of Magdalena, Sonora; idem, Bull. Mus. Comp. Zool., 77, p. 487, 1934—Sonora (Cumpas, Bacuachi, Guaymas).

*Amphispiza bilineata* (not *Emberiza bilineata* Cassin) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 367, 1886—part, Utah, Nevada, and California; Sharpe, Cat. Bds. Brit. Mus., 12, p. 628, 1888—part, spec. a-d, g, Nevada, Arizona (Tucson, Camp Lowell), and California; Allen, Bull. Amer. Mus. N. H., 5, p. 39, 1893—Arizona (Bisbee) and Sonora (Opoto).

*Range*.—Breeds in the southwestern United States from northeastern California, northern Nevada and Utah, northwestern Colorado, and central western Texas to northern Lower California (about 27° lat.), northern Sonora (south to about 29°), and northern Chihuahua (Casas Grandes).

50: California (east of Victorville, 3; Palm Springs, 2); Arizona (Tucson, 3; Charleston, 2; Tombstone, 1; Calabasas, 11; Fairbank, 2; Huachuca Plains, 3; Huachuca Mountains, 4; Fort Verde, 2); New Mexico (Deming, 17).

### ***Amphispiza bilineata pacifica* Nelson.<sup>1</sup> PACIFIC SPARROW.**

*Amphispiza bilineata pacifica* Nelson, Auk, 17, p. 267, July, 1900—Alamos, Sonora (type in U. S. National Museum); van Rossem, Trans. San Diego Soc. N. H., 6, p. 221, 1930—southern Sonora (crit.); idem, l.c., 6, p. 300, 1931—Guaymas and six miles north of Guaymas, Sonora; idem, l.c., 7, p. 145, 1932—Tiburón Island.

*Amphispiza bilineata deserticola* (not of Ridgway, 1898) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 265, 1901—part, southern Sonora.

*Range*.—Arid Tropical zone of northern Sinaloa and southern Sonora, north at least to Kino Bay (latitude 29°) on the coast and probably a little farther up the Yaqui River valley inland, western Mexico (van Rossem).

### **\**Amphispiza bilineata bangsi* Grinnell.<sup>2</sup> BANGS'S SPARROW.**

*Amphispiza bilineata bangsi* Grinnell, Auk, 44, p. 71, Jan. 5, 1927—La Paz, Lower California (type in Museum of Comparative Zoology, Cambridge,

<sup>1</sup> *Amphispiza bilineata pacifica* Nelson: "Size somewhat smaller than *deserticola*, particularly in length of tail; coloration dorsally a distinctly darker shade of brown; darker and decidedly browner than *cana*; very similar to *A. b. bangsi* in relative darkness, but size larger and coloration less slaty. Wing of males (average) 64; tail, 58." (Van Rossem.)

<sup>2</sup> *Amphispiza bilineata bangsi* Grinnell: Similar to *A. b. deserticola*, but smaller (in fact smallest of all the races), and color tone of upper parts and flanks slightly darker and more slaty. According to van Rossem, it is decidedly darker than *A. b. cana*, very much paler than *A. b. tortugae*, and more slaty (less brownish) than *A. b. pacifica*. Wing of males (average), 61½; tail, 54½.

Mass.); idem, Univ. Calif. Pub. Zool., 32, p. 171, 1928—southern Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 221, 1930—Lower California (crit.).

*Amphispiza bilineata* (not *Emberiza bilineata* Cassin) Belding, Proc. U. S. Nat. Mus., 5, p. 540, 1883—Cape region; Salvin and Godman, Biol. Cent.-Amer., Aves, 1, p. 367, 1886—part, La Paz, Lower California (descr.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 628, 1888—part, spec. e, f, La Paz, Lower California; Bryant, Proc. Calif. Acad. Sci., (2), 2, p. 302, 1889—Cape region.

*Amphispiza bilineata deserticola* (not of Ridgway, 1898) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 265, 1901—part, Cape region of Lower California; Brewster, Bull. Mus. Comp. Zool., 41, p. 148, 1902—Cape region; McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 308, 1926—Magdalena Bay, San Bartolomé Bay, and Cedros Island.

*Range*.—Southern Lower California and adjacent islands north to about latitude 27°, Mexico.

5: Lower California (Espiritu Santo, 2; La Paz, 1; San José del Cabo, 1; Pichilínque Island, 1).

***Amphispiza bilineata tortugae* van Rossem.<sup>1</sup> TORTUGA SPARROW.**

*Amphispiza bilineata tortugae* van Rossem, Trans. San Diego Soc. N. H., 6, p. 222, Nov. 28, 1930—Tortuga Island, Lower California, Mexico (type in coll. of Donald R. Dickey, Pasadena).

*Range*.—Tortuga Island, Gulf of California, Lower California, Mexico.

***Amphispiza bilineata cana* van Rossem.<sup>2</sup> ASHY SPARROW.**

*Amphispiza bilineata cana* van Rossem, Trans. San Diego Soc. N. H., 6, p. 223, Nov. 28, 1930—San Estéban Island, Gulf of California, Sonora, Mexico (type in coll. of Donald R. Dickey, Pasadena); idem, l.c., 6, p. 300, 1931—San Estéban Island.

*Range*.—San Estéban Island, Gulf of California, Sonora, Mexico.

<sup>1</sup> *Amphispiza bilineata tortugae* van Rossem: In comparison to *A. b. bilineata* the upper parts are slightly darker and more slaty, the tail spots are smaller, and the under parts, instead of being extensively white with only a tinge of grayish brown on the sides and flanks, are neutral gray with the white reduced to a narrow median area extending from the black gular patch to the under tail coverts. Size similar to the nominate race, but with relatively slightly shorter wings. Wing of males (average), 62.7; tail, 58 (Van Rossem, l.c.).

<sup>2</sup> *Amphispiza bilineata cana* van Rossem: Palest and grayest of the races; most closely resembling *A. b. deserticola*, but smaller, particularly the tail shorter; coloration paler and more ashy (less brownish) on upper parts and flanks. From *A. b. pacifica* distinguished by much more ashy (less brownish) as well as paler coloration. Wing of males (average), 63; tail, 58½ (Van Rossem, l.c.).

**\*Amphispiza bilineata confinis** van Rossem.<sup>1</sup> CHIHUAHUA SPARROW.

*Amphispiza bilineata confinis* van Rossem, Bull. Mus. Comp. Zool., **77**, p. 487, Dec., 1934—Chihuahua, Chihuahua, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Range*.—Deserts of central Chihuahua, northwestern Mexico.

3: Mexico (Chihuahua, 3).

**Amphispiza bilineata grisea** Nelson. MEXICAN BLACK-THROATED SPARROW.

*Amphispiza bilineata grisea* Nelson, Proc. Biol. Soc. Wash., **12**, p. 61, 1898—Tula, Hidalgo, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 266, 1901—central Mexico (monog.); Miller, Bull. Amer. Mus. N. H., **22**, p. 173, 1906—Rancho Baillon, Durango (crit.).

*Range*.—Tableland of Mexico, from southern Chihuahua (Parral) through Durango (Durango, Rancho Baillon) and San Luis Potosí (Ahualulco, Hacienda La Parada) to Hidalgo (Tula).

**\*Amphispiza belli belli** (Cassin). BELL'S SPARROW.

*Emberiza belli* Cassin, Proc. Acad. Nat. Sci. Phila., **5**, No. 5, Sept.-Oct., p. 104, pl. 4, pub. Dec. 7, 1850—California, near Sonoma and San Diego (type in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., **51**, p. 30, 1899).

*Amphispiza belli* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 629, 1888—California.

*Amphispiza belli belli* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 267, 1901 (monog., full bibliog., excl. of Santa Barbara Islands); Grinnell, Univ. Calif. Pub. Zool., **32**, p. 172, 1928—Lower California (excl. of Santa Catalina Landing).

*Range*.—Upper Austral zone of California, west of the Sierra Nevada, south in the interior from Shasta County and on the coast from Marin County through the San Diego district to lat. 30° in Lower California.

16: California (Nicasio, 1; Claremont, 5; Santa Cruz, 1; San Diego, 6; Dulzura, 1; Ballena, San Diego County, 1); Lower California (San Fernando, 1).

<sup>1</sup> *Amphispiza bilineata confinis* van Rossem: About the same size as *A. b. grisea*, but coloration throughout very much paler; similar to *A. b. deserticola*, but even paler and lacking the pale brown tones. In color, it is nearest to *A. b. cana*, but even grayer, and also definitely larger. Wing of males (average), 67; tail, 64.

Characters and range of this and the succeeding race are taken from van Rossem, who made a thorough study of the group on the basis of long series of the various forms.

**\*Amphispiza belli clementeae** Ridgway.<sup>1</sup> SAN CLEMENTE SPARROW.

*Amphispiza belli clementeae* Ridgway, Auk, 15, p. 230, July, 1898—San Clemente Island, Santa Barbara group, off California (type in U. S. National Museum); van Rossem, Auk, 49, p. 490, 1932—San Clemente Island (crit.).

*Amphispiza belli belli* (not *Emberiza belli* Cassin) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 267, 1901—part, Santa Barbara Islands.

*Range*.—San Clemente and probably San Nicolas and Santa Barbara Islands, Santa Barbara group, off California.

11: California (San Clemente Island, 11).

**Amphispiza belli xerophilus** Huey.<sup>2</sup> SANTA CATARINA SPARROW.

*Amphispiza belli xerophilus* Huey, Trans. San Diego Soc. N. H., 6, p. 229, Dec. 24, 1930—Santa Catarina Landing, Lower California (type in coll. of San Diego Society of Natural History).

*Amphispiza belli* (not *Emberiza belli* Cassin) Huey, Auk, 43, p. 357, 1926—Santa Catarina Landing.

*Amphispiza belli belli* Grinnell, Univ. Calif. Pub. Zool., 32, p. 172, 1928—part, Santa Catarina Landing.

*Range*.—Pacific coast of Lower California, at Santa Catarina Landing, lat. 29° 30' north.

**Amphispiza belli cinerea** Townsend. GRAY SAGE SPARROW.

*Amphispiza belli cinerea* Townsend, Proc. U. S. Nat. Mus., 13, p. 136, Sept. 9, 1890—Ballenas Bay, Lower California, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 269, 1901—Lower California (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 172, 1928—Lower California.

*Range*.—Middle Lower California, between lat. 29° and lat. 26°.

**\*Amphispiza belli nevadensis** (Ridgway). NORTHERN SAGE SPARROW.

*Poospiza bellii* var. *Nevadensis* Ridgway, Bull. Essex Inst., 5, No. 11, p. 191, Nov., 1873—"entire area of Middle Province of the U. S.; east to Green

<sup>1</sup> *Amphispiza belli clementeae* Ridgway: Similar to *A. b. belli*, but with slightly longer bill; dorsal coloration in fresh plumage paler, grayer, and more distinctly streaked; young birds paler with very much narrower ventral streaking, thus more nearly resembling the corresponding age of *A. b. canescens*. Bill (exposed culmen), 10 (against 9 mm.).

This form is admitted on the authority of van Rossem, who had occasion to study an adequate series from San Clemente Island.

<sup>2</sup> *Amphispiza belli xerophilus* Huey: Intermediate between *A. b. belli* and *A. cinerea*. The head and nape are neutral gray, the back is slate gray, the two colors differing but little from each other. The back lacks the brownish color of *belli*, but is darker than in *cinerea*. The throat streaks are dark (as in *belli*), but much

River, Wyoming; northward resident to beyond the parallel of 40°; idem, l.c., No. 12, p. 198, Dec., 1873—type stated to be from West Humboldt Mountains, Nevada (in U. S. National Museum).

*Amphispiza belli nevadensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 270, 1901—part, excl. of Los Angeles County, California (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 173, 1928—Colorado desert, Lower California (winter visitant); van Rossem, Trans. San Diego Soc. N. H., 6, p. 300, 1931—El Doctór, Sonora (Jan. 22).

*Range*.—Breeds in the western United States, mainly in the Great Basin district, from Washington, eastern Oregon, northeastern California, Idaho, southwestern Montana, and western Colorado south to central eastern California, southern Nevada, Utah, and northwestern New Mexico; in winter to extreme northeastern California (Colorado delta), Arizona, New Mexico, Texas, and the northern parts of Sonora and Chihuahua, Mexico.

15: Arizona (Phoenix, 5); New Mexico (Deming, 10).

**\**Amphispiza belli canescens* Grinnell.<sup>1</sup> CALIFORNIA SAGE SPARROW.**

*Amphispiza belli canescens* Grinnell, Condor, 7, p. 18, Jan., 1905—Seymour Creek Meadow, Mount Pinos, Ventura County, California (type in coll. of J. Grinnell, now in Museum of Vertebrate Zoology, Berkeley; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 309, 1932); idem, Univ. Calif. Pub. Zool., 32, p. 172, 1928—Colorado desert, Lower California.

*Amphispiza belli nevadensis* (not of Ridgway, 1873) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 270, 1901—part, Los Angeles County.

*Range*.—Breeds in east-central California, from Fresno south at least to Mount Pinos, Ventura County, west to Carrizo Plain, San Luis Obispo County, and east to Owens Valley; in winter more widely distributed, reaching extreme northwestern Lower California (Colorado delta).

1: California (Lone Pine Canyon, 1).

**Genus JUNCO Wagler<sup>2</sup>**

*Junco* Wagler, Isis, 1831, Heft 5, col. 526, May, 1831—type, by monotypy, *Junco phaeonotus* Wagler.

narrower, more like *cinerea*. The brownish cast of the flanks is decidedly lighter than in *belli*, and the black stripes on the flanks are heavier, while these parts, in *cinerea*, are almost unstreaked (Huey, l.c.).

<sup>1</sup> *Amphispiza belli canescens* Grinnell: Similar to *A. b. nevadensis*, but much smaller, and coloration slightly darker; differs from *A. b. belli* in somewhat larger dimensions and very much paler coloration. Wing (males), 69–73; tail, 74–77.

<sup>2</sup> No attempt has been made to investigate the complicated inter-relationship of the various species of this genus, and the catalogue as here presented is mainly based upon the arrangement of the Fourth Edition of the A. O. U. Check List. Dwight, in his review of the juncos (Bull. Amer. Mus. N. H., 38, pp. 269–309,

*Struthus* (not of Boie, 1826) Bonaparte, Geogr. & Comp. List Bds., p. 31, 1838—type, by subs. desig. (Gray, List Gen. Bds., p. 46, 1840), *Fringilla hyemalis* Linnaeus.

*Niphaea* Audubon, Syn. Bds. N. Amer., p. 106, 1839—type, by subs. desig. (Gray, List Gen. Bds., 2nd ed., p. 60, 1841), *Fringilla hyemalis* Linnaeus.

**\*Junco aiken** Ridgway.<sup>1</sup> WHITE-WINGED JUNCO.

*Junco hyemalis* var. *aikeni* Ridgway, Amer. Nat., 7, No. 10, pp. 613, 615, Oct., 1873—near Fountain, El Paso County, Colorado (type in coll. of C. E. Aiken, now in Colorado Springs Museum).

*Junco danbyi* Coues, Nidologist, 3, p. 14, 1895—Black Hills, South Dakota (type now in U. S. National Museum; cf. Coues, Auk, 14, p. 94, 1897;= young).

*Junco aikeni* Sharpe, Cat. Bds. Brit. Mus., 12, p. 649, 1888—El Paso County, Colorado; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 277, 1901 (monog., full bibliog.); Dwight, Bull. Amer. Mus. N. H., 38, p. 290, 1918 (crit.).

*Range*.—Breeds in the Bear Lodge Mountains, Wyoming, the Black Hills, South Dakota, and in northwestern Nebraska; winters from the Black Hills to southern Colorado and western Kansas and casually to Oklahoma, eastern Kansas, and New Mexico.

4: Wyoming (Hat Creek, 2); Colorado (El Paso County, 1; unspecified, 1).

**\*Junco hyemalis hyemalis** (Linnaeus). SLATE-COLORED JUNCO.

*Fringilla hyemalis* Linnaeus, Syst. Nat., 10th ed., 1, p. 183, 1758—based on "The Snow-bird" Catesby, Nat. Hist. Carolina, 1, p. 36, pl. 36; in Virginia and Carolina in winter.

*Fringilla hudsonias* Forster, Philos. Trans., 62, pp. 406, 428, 1772—Severn River, Hudson Bay.

*Fringilla hudsonia* Gmelin, Syst. Nat., 1, (2), p. 926, 1789—new name for *Fringilla hudsonias* Forster.

*Fringilla nivalis* (not of Linnaeus, 1766) Wilson, Amer. Orn., 2, p. 129, pl. 16, fig. 6, 1810—new name for *Fringilla hyemalis* Linnaeus.

(?)*J[unco] h[yemalis] connectens* Coues, Key N. Amer. Bds., 2nd ed., p. 378, 1884—Colorado City [=Colorado Springs], Colorado (type in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 385, 1930); Swarth, Univ. Calif. Pub. Zool., 24, p. 243, 1922—Telegraph Creek, etc., Stikine River region,

1918), tried to explain their unusual variation by admitting hybridization on a large scale, but this theory has been challenged by Swarth (Univ. Calif. Pub. Zool., 24, pp. 243–249, 1922) and van Rossem (Trans. San Diego Soc. N. H., 6, pp. 330–332, 1931), both of whom incline to the view that the so-called "hybrids" are really intergrades or geographical races whose breeding ranges remain to be determined by extended field-work.

<sup>1</sup> *Junco aikeni* Ridgway may prove to be merely a strongly marked local race of *J. hyemalis*.



northern British Columbia (crit.); idem, l.c., 24, p. 355, 1924—Kispiox Valley, Skeena River, British Columbia.<sup>1</sup>

*Junco hyemalis hyemalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 278, 1901 (monog., full bibliog.); Dwight, Bull. Amer. Mus. N. H., 38, p. 285, 1918 (crit.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 168, 1928—Lower California; van Rossem, Bull. Mus. Comp. Zool., 77, p. 488, 1934—Chihuahua, Mexico (Nov.).

*Range*.—Breeds in northern North America from northwestern Alaska (Point Barrow), northern Mackenzie, northern Manitoba, and central Quebec, south to the base of the Alaska Peninsula, southern Yukon, central Alberta, northern Minnesota, central Michigan, Ontario, Maine, Nova Scotia, and in the mountains of Massachusetts, New York, and Pennsylvania; winters throughout the eastern United States and in southern Ontario to the Gulf coast; casual in California, Arizona, New Mexico, Chihuahua, and Lower California; accidental in northeastern Siberia.

140: Alberta (Hastings Lake, 1; Bon Accord, 1); Labrador (Bowdoin Harbor, 1); Ontario (Toronto, 6); Maine (New Vineyard, 1; Upton, 1); Massachusetts (Waverly, 1; Great Island, 1; Duxbury, 1; Boston, 1; Brookline, 1; Middlesex, 1; Arlington, 1); Connecticut (East Hartford, 18; New Hartford, 1; Stamford, 2; Pawtucket, 1); New York (Auburn, 1; Suffolk County, 1; Shelter Island, 3); North Carolina (Munroe County, 1; Vanceville, 1); South Carolina (Aiken, 1); Georgia (Roswell, 1); Wisconsin (Beaver Dam, 14; Woodruff, Vilas County, 7); Illinois (Waukegan, 2; Pistakee Bay, Fox Lake, 1; Deerfield, 2; Highland Park, 7; Lake Forest, 3; Chicago, 6; Jackson Park, Chicago, 1; Batavia, 1; Glen Ellyn, 5; Joliet, 1; Grand Chain, 2; Mound City, 2; Lewistown, 1); Indiana (Miller, 4; Dune Park, 1; Liverpool, 4; Brookville, 1; Davis, Starke County, 1; Bluffton, 3); Ohio (Columbus, 4); Kentucky (Bardstown, 1); Iowa (Knoxville, 8); Kansas (Fort Riley, 2; Independence, 1); Texas (Kerrville, 1; El Paso, 1); Colorado (Fort Lyon, 3); New Mexico (Fort Marcy, 1).

**\**Junco hyemalis carolinensis* Brewster. CAROLINA JUNCO.**

*Junco hyemalis carolinensis* Brewster, Auk, 3, p. 108, Jan., 1886—Black Mountain, North Carolina (cotypes in coll. of W. Brewster, now in Mu-

<sup>1</sup> The authors of the last edition of the A. O. U. Check List, following Ridgway (1901, p. 276), regard the type of *J. h. connectens* as a hybrid, and obviously refuse to accept Swarth's conclusions. However, this most painstaking and conscientious author has advanced very good arguments for the recognition of a separate race in the Stikine River region (and doubtless other contiguous areas), to which Coues' term would seem to be applicable, and, what is even more important, his remarks on the coloration of the females cast serious doubts on the specific distinctness of *J. oregonus*. Swarth's discussion of the problem—the so-called hybridization among juncos—is a very lucid exposition of the facts, and deserves careful consideration in further studies of the subject.

seum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 385, 1930); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 282, 1901 (monog., full bibliog.); Dwight, Bull. Amer. Mus. N. H., 38, p. 285, 1918 (crit.).

*Range*.—Breeds in the mountains of the southeastern United States, from western Maryland, Virginia, and West Virginia south to northern Georgia; winters in the adjacent lowlands.

3: Virginia (Mountain Lake, 1); Georgia (Roswell, 2).

**\*Junco oreganus oreganus** (Townsend).<sup>1</sup> OREGON JUNCO.

*Fringilla oregana* Townsend, Journ. Acad. Nat. Sci. Phila., 7, Part 2, p. 188, Nov. 21, 1837—forests near the Columbia River=Fort Vancouver, Washington (cotypes in U. S. National Museum and the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 14, 1899).

*Fringilla oregana* Audubon, Orn. Biogr., 5, p. 68, 1839—Columbia River.

*Fringilla* (*Zonotrichia*) *atrata* (not *Fringilla atrata* Lichtenstein, 1819) Kittlitz, Denkw. Reise, 1, p. 199, 1858—substitute name for *Fringilla oregana* Townsend.

*Junco oreganus oreganus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 283, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 24, p. 253, 1922—lower Stikine Valley, Alaska (crit.).

*Junco oregonus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 650, 1888 (monog.).

*Junco oregonus oregonus* Dwight, Bull. Amer. Mus. N. H., 38, pp. 291, 292, 1918—Alaska and British Columbia (crit.).

*Range*.—Breeds from Yakutat Bay, Alaska, to the Queen Charlotte Islands and Vancouver Island, British Columbia; winters southward along the coast to Santa Cruz and San Mateo counties, California, and casually to Nevada.

21: Alaska (Kelp Bay, Baranof Island, 1); Oregon (Tillamook, 2; Logan, 9); California (Nicasio, 2; near Plymouth, 1; Oakland, 1; Los Gatos, 1; Hayward, 1; Pacific Grove, 1; San José, 2).

**\*Junco oreganus shufeldti** Coale. SHUFELDT'S JUNCO.

*Junco hyemalis shufeldti* Coale, Auk, 4, p. 330, Oct., 1887—Fort Wingate, New Mexico (type in U. S. National Museum).

*Junco oregonus couesi* Dwight, Bull. Amer. Mus. N. H., 38, p. 291, 1918—Okanagan, British Columbia (type in coll. of J. Dwight, Jr., now in the American Museum of Natural History, New York).

*Junco oreganus shufeldti* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 285, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 24, p. 355, 1924—Skeena River region, British Columbia (breeding; crit.); Grinnell, l.c., 32, p. 168, 1928—northwestern Lower California; Oberholser, Sci.

<sup>1</sup> The names *cismontanus* and *transmontanus* tentatively proposed by Dwight (Bull. Amer. Mus. N. H., 38, p. 295, 1918) do not seem to have any geographical significance.

Pub. Clevel. Mus. N. H., 1, p. 123, 1930—Cloudcroft, New Mexico (winter); van Rossem, Trans. San Diego Soc. N. H., 6, p. 301, 1931—Sarie and south of Nogales, Sonora; idem, Bull. Mus. Comp. Zool., 77, p. 488, 1934—Chihuahua, Mexico (Oct. to Dec.).

*Range*.—Breeds in northwestern North America from central British Columbia (Skeena Valley) east to western central Alberta and south to northern Oregon; winters over the entire Rocky Mountain tableland to eastern Colorado, Arizona, New Mexico, western Texas, Chihuahua, Sonora, and northwestern Lower California; casual in Illinois.

37: British Columbia (Okanagan Landing, 3; Okanagan, 5; Sumas, 1); Washington (Pullman, 3; Prescott, 1); Oregon (Tillamook, 1; Mulino, 1; Salem, 1); Montana (Columbia Falls, 1); California (Nicasio, 2; Pacific Grove, 1; Mariposa, 2); Colorado (Fort Lyon, 3; Boulder, 1; Pueblo, 1; Loveland, 1); Arizona (Tucson, 2; Whipple Barracks, 2; Carr Canyon, Huachuca Mountains, 1); New Mexico (Fort Wingate, 1); Texas (El Paso, 1); Mexico (30 miles west of Miñaca, Chihuahua, 1); Illinois (Waukegan, 1).

**\**Junco oreganus montanus* Ridgway. MONTANA JUNCO.**

*Junco montanus* Ridgway, Auk, 15, p. 321, Oct., 1898—Columbia Falls, Montana (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 289, 1901 (monog., full bibliog.).

*Junco oreganus montanus* Oberholser, Sci. Pub. Clevel. Mus. N. H., 1, p. 122, 1930—Cloudcroft, New Mexico (March).

*Range*.—Breeds in the Rocky Mountains of North America from southern Alberta south to Idaho, eastern Oregon, and northwestern Montana; winters south to Arizona, New Mexico, Chihuahua, and Texas; casually east to Kansas, Illinois, Indiana, Massachusetts, and Maryland.

6: Montana (Columbia Falls, 1); Colorado (Fort Lyon, 1; Loveland, 1); Arizona (Tucson, 1; Carr Canyon, Huachuca Mountains, 1; Chiricahua Mountains, 1).

**\**Junco oreganus thurberi* Anthony. THURBER'S JUNCO.**

*Junco hyemalis thurberi* Anthony, Zoë, 1; No. 8, p. 238, "Oct." [=Nov.], 1890—Wilson's Peak [San Gabriel Range], California (type in coll. of A. W. Anthony, now in Carnegie Museum; cf. Todd, Ann. Carnegie Mus., 18, p. 362, 1928).

*Junco oreganus thurberi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 287, 1901 (monog., full bibliog.); Grinnell and Swarth, Univ. Calif. Pub. Zool., 10, p. 276, 1913—San Jacinto area, California; Grinnell, l.c., 32, p. 168, 1928—Lower California.

*Junco oregonus thurberi* Dwight, Bull. Amer. Mus. N. H., 38, p. 291, 1918 (crit.).

*Range*.—Breeds in the western United States from southern Oregon south through the Sierra Nevada, the mountains immediately east, and many of the coast ranges to San Diego County, California; winters at lower levels within the breeding area southward to Arizona and to lat. 30° in Lower California.

42: Oregon (Prospect, 2); California (Nicasio, 12; Clipper Gap, 1; Portola, San Mateo County, 2; Hayward, 2; Marysville, 1; Eldorado, 1; Sierra Madre, 2; Yosemite, 2; Oakland, 1; Santa Barbara, 3; Pacific Grove, 2; Monterey, 1; Green Valley, 2; Blue Canyon, 1; Horse Camp, 1; San Bernardino County, 4; Little Bear Valley, 1; Piute Mountains, Kern County, 1).

***Junco oreganus mutabilis* van Rossem.<sup>1</sup> NEVADA JUNCO.**

*Junco oreganus mutabilis* van Rossem, Trans. San Diego Soc. N. H., 6, p. 329, June 5, 1931—Lee Canyon, Charleston Mountains, Clark County, Nevada (type in coll. of Donald R. Dickey, Pasadena).

*Range*.—Transition zone in the Charleston and Sheep Mountains, Clark County, Nevada; winter range unknown.

**\**Junco oreganus pinosus* Loomis. POINT PINOS JUNCO.**

*Junco pinosus* Loomis, Auk, 10, p. 47, Jan., 1893—vicinity of Monterey [=Point Pinos], California (type in Stanford University, California; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 309, 1932).

*Junco hyemalis pinosus* Loomis, Auk, 11, p. 265, pl. 7, 1894—Point Pinos; Kaeding, Bull. Cooper Orn. Cl., 1, p. 81, 1899—vicinity of Monterey and Alameda.

*Junco oreganus pinosus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 288, 1901 (monog.).

*Junco oregonus pinosus* Dwight, Bull. Amer. Mus. N. H., 38, p. 291, 1918 (crit.).

*Range*.—Coastal district of California from San Mateo and Alameda counties to southern Monterey County.

12: California (Pacific Grove, 2; Monterey, 10).

***Junco oreganus pontilis* Oberholser.<sup>2</sup> HANSON LAGUNA JUNCO.**

*Junco oreganus pontilis* Oberholser, Condor, 21, p. 119, "May" [=June 6], 1919—El Rayo, Hanson Laguna Mountain, Lower California (type in

<sup>1</sup> *Junco oreganus mutabilis* van Rossem: Differs from its geographical neighbor *J. o. thurberi* in possessing a red (not pinkish brown) back, a very much grayer (not black) head and chest, and less extensively colored sides and flanks; while from *J. caniceps* it is distinguished by its darker head and chest, with relatively sharply defined pectoral area, duller back, and more or less pinkish tinted sides.

According to the describer's observations, variation in this form seems to bridge the gap between *caniceps* and *thurberi*, at least in certain color-characters, and shows once more that the last word on the proper classification of the members of this genus has not yet been said.

<sup>2</sup> *Junco oreganus pontilis* Oberholser: Similar to *J. o. townsendi*, but head and throat darker slate color, and back more rufescent; similar also to *J. o. thurberi*,

U. S. National Museum); Grinnell, Univ. Calif. Pub. Zool., 32, p. 169, 1928—Laguna Hanson and Los Pozos.

*Junco hyemalis oregonus* (not *Fringilla oregana* Townsend) Bryant, Proc. Calif. Acad. Sci., (2), 2, p. 301, 1889—in the pine region about "Hansen's."

*Range*.—Resident in the Sierra Juárez, in northern Lower California.

**\*Junco oreganus townsendi** Anthony. TOWNSEND'S JUNCO.

*Junco townsendi* Anthony, Proc. Calif. Acad. Sci., (2), 2, p. 76, Oct. 11, 1889—San Pedro [Mártir] Mountains, Lower California (cotypes in coll. of A. W. Anthony, now in Carnegie Museum; cf. Todd, Ann. Carnegie Mus., 18, p. 362, 1928); idem, Zoë, 4, p. 241, 1893—pine region of San Pedro Mártir Mts. (nest and eggs descr.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 293, 1901 (monog.).

*Junco mearnsi townsendi* Dwight, Bull. Amer. Mus. N. H., 38, p. 296, 1918—San Pedro Mártir Mts. (crit.).

*Junco oreganus townsendi* Grinnell, Univ. Calif. Pub. Zool., 32, p. 170, 1928—Sierra San Pedro Mártir.

*Range*.—Resident in the Sierra San Pedro Mártir, Lower California.

4: Lower California (San Pedro Mártir, 4).

**\*Junco oreganus insularis** Ridgway.<sup>1</sup> GUADALUPE JUNCO.

*Junco insularis* Ridgway, Bull. Geol. and Geog. Surv. Terr., 2, No. 2, p. 188, April, 1876—Guadalupe Island, Lower California (type in U. S. National Museum); Bryant, Bull. Calif. Acad. Sci., 2, No. 6, p. 300, 1887—Guadalupe (habits, nest, and eggs); Sharpe, Cat. Bds. Brit. Mus., 12, p. 652, 1888 (monog.); Townsend, Proc. U. S. Nat. Mus., 13, p. 138, 1890—Guadalupe; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 293, 1901 (monog.); Thayer and Bangs, Condor, 10, p. 106, 1908—Guadalupe; Townsend, Bull. Amer. Mus. N. H., 48, p. 19, 1923—Guadalupe; McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 308, 1926—Guadalupe; Grinnell, Univ. Calif. Pub. Zool., 32, p. 170, 1928—Guadalupe.

*Junco mearnsi insularis* Dwight, Bull. Amer. Mus. N. H., 38, p. 296, 1918 (crit.).

*Range*.—Guadalupe Island, off Lower California.

4: Lower California (Guadalupe Island, 4).

but with head and throat much less blackish, back much less extensively rufescent brown, and flanks paler as well as more pinkish.

This form is thus seen to be intermediate between *J. o. thurberi* and *J. o. townsendi*.

<sup>1</sup> *Junco insularis* Ridgway and *J. bairdi* Ridgway are clearly representatives of *J. oreganus*, and their segregated ranges alone cannot well justify their retention as separate species.

**\*Junco oreganus bairdi** Ridgway. BAIRD'S JUNCO.

*Junco bairdi* (Belding MS.) Ridgway, Proc. U. S. Nat. Mus., 6, p. 155, Oct. 5, 1883—Laguna, Lower California (type in U. S. National Museum); Belding, l.c., p. 348, 1883—Victoria Mts., Lower California; Sharpe, Cat. Bds. Brit. Mus., 12, p. 653, 1888 (ex Ridgway); Bryant, Proc. Calif. Acad. Sci., (2), 2, p. 301, 1889—Victoria Mountains and La Laguna; idem, Zoë, 2, p. 198, 1891—Victoria Mts.; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 294, 1901—Cape district (monog.); Brewster, Bull. Mus. Comp. Zool., 41, p. 147, 1902—Cape region of Lower California (plumages, habits); Dwight, Bull. Amer. Mus. N. H., 38, p. 302, pl. 12, fig. 2, 1918 (crit.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 170, 1928—Victoria Mts., Cape district.

*Range*.—Victoria Mountains, Cape district of Lower California, Mexico.

5: Lower California (El Sauz, 3; Sierra de las Lagunas, 1; unspecified, 1).

**\*Junco (oreganus?) mearnsi** Ridgway. PINK-SIDED JUNCO.

*Junco mearnsi* Ridgway, Auk, 14, p. 94, Jan., 1897—Fort Bridger, Wyoming (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 291, 1901 (monog., full bibliog.); Oberholser, Sci. Pub. Clevel. Mus. N. H., 1, p. 122, 1930—Cloudcroft, New Mexico (Mar.–Apr.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 301, 1931—Nogales and fifteen miles southwest of Nogales, Sonora (Jan., Feb.); idem, Bull. Mus. Comp. Zool., 77, p. 488, 1934—Chihuahua, Mexico (Oct.–Dec.).

*Junco mearnsi mearnsi* Dwight, Bull. Amer. Mus. N. H., 38, p. 296, pl. 11, fig. 3, 1918 (crit.).

*Range*.—Breeds from southwestern Saskatchewan to southern Idaho and northern Wyoming; winters south through Wyoming, northwestern Nebraska, and Colorado to southern Arizona, southern New Mexico, Sonora, and Chihuahua.

22: Colorado (Clear Creek, Denver, 1; Colorado Springs, 1; Windsor, 2; Fort Lyon, 7); New Mexico (Mimbres, 3; Fort Union, 2; Fort Marcy, 1; Santa Fe, 1); Arizona (Chiricahua Mountains, 1); Mexico (Bustillos, Chihuahua, 1; 30 miles west of Miñaca, Chihuahua, 2).

**\*Junco (oreganus?) caniceps** (Woodhouse). GRAY-HEADED JUNCO.

*Struthus caniceps* Woodhouse, Proc. Acad. Nat. Sci. Phila., 6, No. 6, Nov.–Dec., 1852, p. 202, pub. Feb. 7, 1853—San Francisco Mountain, "New Mexico" [=Arizona] (type possibly in the U. S. National Museum);<sup>1</sup> idem, in Rep. Sitgreave's Expl. Zuñi and Colorado R., pl. 3, 1853.

<sup>1</sup> Though San Francisco Mountain is now accepted as type locality, it is by no means certain that Woodhouse actually based his description on the specimen from that locality. He mentions several males in the Philadelphia Academy,

*Junco caniceps* Sharpe, Cat. Bds. Brit. Mus., 12, p. 654, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 295, 1901 (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 174, 1906—Cienaga de las Vacas, Durango (March–April); Dwight, Bull. Amer. Mus. N. H., 38, p. 298, pl. 11, fig. 4, 1918 (crit.); Oberholser, Sci. Pub. Clevel. Mus. N. H., 1, pp. 108, 122, 1930—Huachuca Mts., Arizona (Oct.), and Cloudcroft, New Mexico (March, April); van Rossem, Trans. San Diego Soc. N. H., 6, p. 301, 1931—Nogales, Sonora (Feb.).

*Junco caniceps caniceps* van Rossem, Bull. Mus. Comp. Zool., 77, p. 488, 1934—Chihuahua (Nov., Dec.).

**Range.**—Breeds in the Rocky Mountains in southern Wyoming, Colorado, Utah, Nevada (Toyabe Mountains), and northern New Mexico (upper Pecos River); winters at lower elevations and south to northwestern Mexico (Sonora, Chihuahua, and northwestern Durango).<sup>1</sup>

36: Colorado (Williams Range, Routt County, 2; Berthoud's Pass, 4; west slope of Gore Range, 2; Beulah, 1; Platte Canyon, 1); Arizona (Pinery Canyon, 3; Chiricahua Mountains, 1; Huachuca Mountains, 6); New Mexico (Fort Cummings, 1); Mexico (30 miles west of Miñaca, Chihuahua, 8; Bustillos, Chihuahua, 5; unspecified, 2).

### ***Junco phaeonotus*<sup>2</sup> *dorsalis* Henry. RED-BACKED JUNCO.**

*Junco dorsalis* Henry, Proc. Acad. Nat. Sci. Phila., 10, p. 117, pub. after April 19, 1858—Fort Thorn, New Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 297, 1901 (monog., full bibliog.); Oberholser, Sci. Pub. Clevel. Mus. N. H., 1, p. 121, 1930—Cloudcroft and Mayfield, New Mexico (March to May 15).

one in Cassin's possession, and a female obtained by himself in the San Francisco Mountains. The range is given as "western Texas and New Mexico." I am not sure that the specimen supposed to be in the U. S. National Museum can really be regarded as the type.

<sup>1</sup> A bird of doubtful standing is *Junco annectens* Baird (in Cooper, Ornith. Calif., p. 564, 1870—type, from Fort Bridger, Wyoming, in U. S. National Museum; cf. Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, note 2, 1901), redescribed as *Junco ridgwayi* Mearns (Auk, 7, p. 243, July, 1890—type, from Whipple Barracks, Arizona, in U. S. National Museum; cf. Ridgway, Auk, 14, p. 94, 1897). Though considered of hybrid origin by Ridgway and others, van Rossem (Trans. San Diego Soc. N. H., 6, p. 332, 1931) thinks it not unlikely that it might yet prove to be a transitional form between *mearnsi* and *caniceps* with a definite, though necessarily limited range, since certain winter birds from southeastern Arizona closely resemble Baird's type.

<sup>2</sup> The relationship of *J. phaeonotus* to *J. oregonus* requires further elucidation. Dwight (Bull. Amer. Mus. N. H., 38, pp. 299–300, 1918) regards *J. dorsalis* as a "hybrid" between *J. (oreganus?) caniceps* and *J. phaeonotus (palliatius?)*, but he applied the word "hybrid" to facts and conditions it is not commonly called upon to cover, using it for populations of wide stretches of country showing intermediacy between the characters of neighboring races. Still, his treatment in this particular case suggests close affinities of the birds in question, and as the *phaeonotus* complex obviously represents the northern group in its breeding range to the exclusion of any other form, they might yet be found to be conspecific.

*Junco cinereus dorsalis* Ridgway, Auk, 2, p. 364, 1885—eastern Arizona and New Mexico (crit.).

**Range.**—Breeds in high mountains of northern Arizona and New Mexico; winters south to southwestern Texas, Sonora, and Chihuahua.

**\*Junco phaeonotus palliatus** Ridgway. ARIZONA JUNCO.

*Junco cinereus palliatus* Ridgway, Auk, 2, p. 364, Oct., 1885—Mount Graham, Arizona (type in U. S. National Museum).

*Junco phaeonotus palliatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 301, 1901 (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 174, 1906—Arroyo del Buey, Durango (crit.); Dwight, l.c., 38, p. 300, 1918—southern Arizona and northern Mexico (crit.); Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 327, 1929—Santa Rita Mountains, southern Arizona; Oberholser, Sci. Pub. Clevel. Mus. N. H., 1, p. 107, 1930—Huachuca Mountains, Arizona; van Rossem, Bull. Mus. Comp. Zool., 77, p. 488, 1934—Chihuahua (Pinos Altos, Jesus Maria, Carmen).

*Junco cinereus* (not *Fringilla cinerea* Swainson) Sharpe, Cat. Bds. Brit. Mus., 12, p. 653, 1888—part, spec. d-f, Ciudad Durango.

**Range.**—Breeds in the mountains of southern Arizona (Mount Graham, Chiricahua Mts., Santa Catalina Mts., Santa Rita Mts., Huachuca Mts.) and of the adjacent districts of Sonora (San José Mountain), Chihuahua, and (?) western Durango (Durango, Arroyo del Buey),<sup>1</sup> Mexico.

37: Arizona (San Pedro Slope, Pinal County, 1; Chiricahua Mountains, 3; Pinery Canyon, 2; Huachuca Mountains, 14; unspecified, 1); Mexico (30 miles west of Miñaca, Chihuahua, 15; Bustillos, Chihuahua, 1).

**Junco phaeonotus phaeonotus** Wagler. MEXICAN JUNCO.

*Fringilla cinerea* (not of Gmelin, 1789) Swainson, Philos. Mag., (n.s.), 1, No. 6, p. 435, June, 1827—Temascaltepec, Mexico (type in coll. of W. Bullock).

*Junco phaeonotus* Wagler, Isis, 1831, col. 526—Mexico (type in Munich Museum examined).

*Junco cinereus* Sclater, Proc. Zool. Soc. Lond., 24, p. 306, 1856—El Jacale, Vera Cruz; idem, l.c., 26, p. 304, 1858—La Parada, Oaxaca; idem, l.c., 27, p. 365, 1859—Jalapa, Vera Cruz; idem, Cat. Coll. Amer. Bds., p. 115, 1862—Popocatepetl and Jalapa, Mexico; idem, Proc. Zool. Soc. Lond., 1864, p. 174—Valley of Mexico; Dugès, La Nature, 1, p. 140, 1868—Guanajuato; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—alpine region of Vera Cruz; Ridgway, Auk, 2, p. 364, 1885—Sierra Madre of Chihuahua to Vera Cruz (crit.); Ferrari-Perez and Ridgway, Proc. U. S. Nat. Mus., 9, p. 145, 1886—Teziutlan, Puebla (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 373, 1886—Mexico; Sharpe, Cat. Bds. Brit. Mus., 12, p. 653, 1888—part, spec. a-c, g-k, Jalapa and Popocate-

<sup>1</sup> Specimens from Durango, according to Miller, tend towards *J. p. phaeonotus*.



petl; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 215—Chalchicomula, Popocatepetl, and Volcan de Toluca, Mexico; Jouy, Proc. U. S. Nat. Mus., 16, p. 779, 1894—mountains west of Charcas, San Luis Potosí; Cox, Auk, 12, p. 357, 1895—San Andres, foot of Mount Orizaba; Chapman, Bull. Amer. Mus. N. H., 10, p. 41, 1898—Las Vegas, Vera Cruz (habits).

*Junco phaeonotus phaeonotus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 299, 1901 (monog., full bibliog.); Phillips, Auk, 28, p. 88, 1911—Galindo, Tamaulipas; Dwight, Bull. Amer. Mus. N. H., 38, p. 300, pl. 12, 1918 (crit.); Griscom, Bull. Mus. Comp. Zool., 75, p. 419, 1934—Chilpancingo, Guerrero.

*Range*.—High mountains of Mexico, from southern Chihuahua (Colonia Garcia), Tamaulipas (Galindo), and San Luis Potosí south to Jalisco, Guerrero, and Oaxaca.<sup>1</sup>

### **Junco phaeonotus fulvescens** Nelson.<sup>2</sup> CHIAPAS JUNCO.

*Junco fulvescens* Nelson, Auk, 14, p. 61, Jan., 1897—San Cristóbal, Chiapas, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 302, 1901 (monog.).

*Junco alticola fulvescens* Dwight, Bull. Amer. Mus. N. H., 38, p. 302, 1918 (crit.).

*Range*.—Highlands of southeastern Mexico, in State of Chiapas.

### **\*Junco phaeonotus alticola** Salvin. GUATEMALA JUNCO.

*Junco alticola* Salvin, Proc. Zool. Soc. Lond., 1863, p. 189—"Guatemala in regione alta"—pine forests of Volcan de Fuego (cotypes in Salvin-Godman Collection, now in British Museum); Salvin, Ibis, 1866, p. 193—Volcan de Agua, Volcan de Fuego, Quetzaltenango, and Totonicapam, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 374, pl. 26, fig. 1, 1886—Guatemala (Volcan de Agua, Volcan de Fuego, Altos, Quetzaltenango, Totonicapam); Sharpe, Cat. Bds. Brit. Mus., 12, p. 656, 1888—same localities; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 303, 1901—Guatemala (monog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 116, 1907—Sierra Santa Elena; Griscom, Bull. Amer. Mus. N. H., 64, p. 362, 1932—Guatemala (Chichicastenango, Momostenango, Zanzón, Santa Ilania, San Mateo, Quetzaltenango, Tecpam).

*Junco alticola alticola* Dwight, Bull. Amer. Mus. N. H., 38, p. 302, pl. 12, fig. 3, 1918 (crit.).

*Range*.—High mountains of Guatemala.

20; Guatemala (near Tecpam, 7; Volcan Tajumulco, San Marcos, 10; Santa Elena, Chimaltenango, 3).

<sup>1</sup> Specimens from the highlands of Vera Cruz agree with the type. Two races, *J. phaeonotus colimae*, from the Sierra Nevada de Colima, Jalisco, and *J. p. australis*, from the Sierra Madre of Guerrero, have recently been segregated by van Rossem (Bull. Brit. Orn. Cl., 58, pp. 132, 133, July 13, 1938).

<sup>2</sup> *Junco phaeonotus fulvescens* Nelson, in the color of the upper parts, is just intermediate between the rusty-backed *J. p. phaeonotus* and the brown-backed *J. p. alticola*. Three specimens examined.

**\*Junco vulcani** (Boucard).<sup>1</sup> IRAZÚ JUNCO.

*Zonotrichia vulcani* Boucard, Proc. Zool. Soc. Lond., 1878, p. 57, pl. 4—Volcan de Irazú, Costa Rica (type in coll. of A. Boucard, now in Paris Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 371, pl. 26, fig. 2, 1886—Volcan de Cartago [=Irazú]; Sharpe, Cat. Bds. Brit. Mus., 12, p. 602, 1888—Volcan de Irazú.

*Junco vulcani* Ridgway, Proc. U. S. Nat. Mus., 1, p. 255, 1878—Volcan de Irazú (crit.); Nutting, l.c., 5, p. 495, 1883—Volcan de Irazú (habits); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Volcan de Irazú; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 304, 1901 (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 70, 1902—Volcan de Chiriquí, Panama; idem, Proc. Biol. Soc. Wash., 19, p. 112, 1906—Volcan de Chiriquí and Irazú (crit.); Carriker, Ann. Carnegie Mus., 6, p. 907, 1910—Volcan de Irazú, Las Vueltas de Dota, and Volcan de Turrialba, Costa Rica (habits); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 280, 1910—Volcan de Turrialba, Costa Rica; Dwight, Bull. Amer. Mus. N. H., 38, p. 303, pl. 4, 1918 (crit.); Griscom, Bull. Mus. Comp. Zool., 78, p. 381, 1935—Volcan de Chiriquí.

*Range*.—High mountains of Costa Rica (Volcan de Irazú, Volcan de Turrialba, Las Vueltas de Dota) and extreme western Panama (Volcan de Chiriquí).

10: Costa Rica (Volcan de Irazú, 1; Volcan de Turrialba, 9).

Genus **SPIZELLA** Bonaparte

*Spizella* Bonaparte, Giornale Arcadico, 52, p. 205, 1831—type, by orig. desig. *Fringilla pusilla* Wilson.

*Spinites* Cabanis, Mus. Hein., 1, p. 133, Oct., 1851—new name for *Spizella* Bonaparte.

**\*Spizella arborea arborea** (Wilson). EASTERN TREE SPARROW.

*Fringilla montana* (not of Linnaeus, 1758) Forster, Philos. Trans., 62, p. 405, 1772—Hudson's Bay.

*Fringilla arborea* Wilson, Amer. Orn., 2, p. 123, pl. 16, fig. 3, 1810—Pennsylvania (type in Peale's Museum, apparently lost).

*Spizella monticola* (not *Fringilla monticola* Gmelin)<sup>2</sup> Sharpe, Cat. Bds. Brit. Mus., 12, p. 657, 1888 (monog.).

*Spizella monticola monticola* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 307, 1901 (monog., full bibliog.).

*Range*.—Northern North America from central Mackenzie (Great Bear Lake) and northern Quebec to Great Slave Lake,

<sup>1</sup> *Junco vulcani* (Boucard), though rather an aberrant member of the genus, does not seem to have any near relationship to *Zonotrichia*.

I am unable to find any difference whatsoever between seven skins from the Volcan de Chiriquí and twenty from Costa Rica (volcanoes of Irazú and Turrialba).

<sup>2</sup> Cf. Oberholser, Proc. Biol. Soc. Wash., 32, p. 139, 1919.

northern Manitoba, central Quebec, and Newfoundland; winters from southern Minnesota, Ontario, and the Maritime Provinces south to eastern Oklahoma, Arkansas, South Carolina, and Georgia.

97: Maine (Lincoln, 1; New Vineyard, 1); Massachusetts (Wilmington, 1; Cambridge, 1); Connecticut (East Hartford, 26; Ivoryton, 1); New York (Shelter Island, 2); New Jersey (Englewood, 1); Wisconsin (Beaver Dam, 11); Illinois (Beach, Lake County, 13; Pistakee Bay, Fox Lake, 1; Deerfield, Lake County, 1; Highland Park, 3; Chicago, 2; Lavergne, Cook County, 1; Glen Ellyn, 1; Hyde Lake, 1; Warsaw, 1; Lewistown, 2; Clearing, 1; Morris, 1; Mound City, 1); Iowa (Knoxville, 13); Indiana (Bluffton, 4); Ohio (Columbus, 6).

**\**Spizella arborea ochracea* Brewster. WESTERN TREE SPARROW.**

*Spizella monticola ochracea* Brewster, Bull. Nutt. Orn. Cl., 7, No. 4, p. 228, Oct., 1882—Fort Walla Walla, Washington (cotypes in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 386, 1930); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 309, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 24, p. 242, 1922—north of Telegraph Creek, Stikine River region, British Columbia; idem, l.c., 30, p. 129, 1926—Atlin region, British Columbia.

[*Spizella monticola*] subsp. *a* *Spizella ochracea* Sharpe, Cat. Bds. Brit. Mus., 12, p. 659, 1888 (monog.).

*Range*.—Northwestern North America from the coast of Bering Sea and Point Barrow east to the Anderson River and south in the mountains to northern British Columbia; winters from New Mexico and Texas to eastern Nebraska and eastern Kansas; casual in north-eastern California and Arizona.

21: Alaska (Nome, 4); Alberta (Medicine Hat, 1); California (Butte County, 1; Hayward, 1); Utah (Ogden, 1); Colorado (Altona, Boulder County, 1; Windsor, 2; Colorado Springs, 2; Loveland, 1; Clear Creek, Denver, 1; Turkey Creek, El Paso County, 1; Fort Lyon, 4); Texas (Giddings, 1).

**\**Spizella passerina passerina* (Bechstein). EASTERN CHIPPING SPARROW.**

*Fringilla passerina* (Borkhausen MS.) Bechstein, Latham's Allg. Uebers. Vogel, 3, (2), p. 544, pl. 120, fig. 1, 1798—Canada (type in Darmstadt Museum).

*Fringilla socialis* Wilson, Amer. Orn., 2, p. 127, pl. 16, fig. 5, 1810—eastern Pennsylvania (type in Peale's Museum, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 385, 1930).

*Spizella domestica* Coues, Proc. Acad. Nat. Sci. Phila., 1875, p. 351—new name for *Fringilla socialis* Wilson.

*Spizella socialis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 660, 1888 (in part).

*Spizella socialis socialis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 311, 1901 (monog., full bibliog.).

*Spizella passerina passerina* Swarth, Univ. Calif. Pub. Zool., 24, p. 243, 1922—Stikine Valley, British Columbia; idem, l.c., 30, p. 130, 1926—Atlin region, British Columbia.

*Range*.—Breeds from Yukon, Mackenzie, northern British Columbia, Saskatchewan, central Manitoba, northern Ontario, southern Quebec, and Cape Breton Island to central Texas, southern Mississippi, and central Georgia; winters in the southern states; casual in Cuba and northeastern Mexico.

67: Maine (Lincoln, 1); Massachusetts (Belmont, 1; Brookline, 3; Watertown, 1); Connecticut (East Hartford, 10); New York (Auburn, 1; Shelter Island, 4; Long Island, 1); New Jersey (Englewood, 1); Wisconsin (Beaver Dam, 20); Illinois (Beach, 2; Waukegan, 1; Lake Forest, 1; Warsaw, 1; Grand Tower, 2; Grand Chain, 7); Indiana (Brookville, 1; Liverpool, 1); Arkansas (Winslow, 1); Mississippi (Vicksburg, 1; Holly Springs, 1); Florida (Nassau County, 4; Gainesville, 1).

**\**Spizella passerina arizonae* Coues. WESTERN CHIPPING SPARROW.**

[*Spizella socialis*] var. *Arizonae* Coues, Key N. Amer. Bds., p. 143, 1872—Arizona (type, from Fort Whipple, in U. S. National Museum).

*Spizella passerina stridula* Grinnell, Condor, 29, p. 81, Jan., 1927—Pasadena, Los Angeles County, California (type in Museum of Vertebrate Zoology, Berkeley); idem, Univ. Calif. Pub. Zool., 32, p. 166, 1928—Lower California.

*Spizella socialis* (not *Fringilla socialis* Wilson) Sharpe, Cat. Bds. Brit. Mus., 12, p. 660, 1888 (in part).

*Spizella socialis arizonae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 315, 1901 (monog., full bibliog.).

*Spizella passerina arizonae* Phillips, Auk, 28, p. 88, 1911—Santa Leonor, Montelungo, and Galindo, Tamaulipas; Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 326, 1929—southern Arizona (fall migrant); van Rossem, Trans. San Diego Soc. N. H., 6, p. 301, 1931—Nogales, Tecoripa, San Javier, Tésia, Saric, Chinobampo, and twelve miles west of Magdalena, Sonora; Griscom, Bull. Mus. Comp. Zool., 75, p. 419, 1934—Chilpancingo, Guerrero (Nov. 27); van Rossem, l.c., 77, p. 488, 1934—Chihuahua (Mina Abundancia, Chihuahua, Durazno; Apr., Oct. to Dec.) and Sonora (Nacozari; March).

*Range*.—Breeds from southern British Columbia and western Alberta south through the Pacific coast district and the Rocky Mountains to the Mexican border;<sup>1</sup> winters from California and Texas south to Cape San Lucas, Lower California, and the Mexican tableland; casual on Guadalupe Island and at Point Barrow, Alaska.

58: Saskatchewan (Lake Johnston, Moose Jaw, 3); British Columbia (Okanagan, 7); Oregon (Prospect, 2; Logan, 2; Trail, 1); California (Cloverdale, 1; Riverside, 1; Fair Oaks, 1; Meyer's Station, 2; Eagle Lake, 1; Los Gatos, 1; La Puerta Valley, 1); Colorado (Williams Range, Routt County, 1; Routt County, 1; Berthoud's Pass, 1; Hot Sulphur Springs, 1; Fort Lyon, 6); Arizona (Tucson, 1; Chiricahua Mountains, 1; Fort Huachuca, 1; Huachuca Mountains, 2; Whipple Barracks, 1); New Mexico (Mimbres, 7; Rincon, 1); Texas (Crystal City, 1; El Paso, 1; Cooke County, 1); Mexico (30 miles west of Miñaca, Chihuahua, 1; Babicora, Chihuahua, 4; unspecified, 2; San Luis Potosí, 1).

**\**Spizella passerina mexicana* Nelson. MEXICAN CHIPPING SPARROW.**

*Spizella socialis mexicana* Nelson, Auk, 16, p. 30, Jan., 1899—San Cristóbal, Chiapas, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 313, 1901—southern Mexico and northwestern Guatemala (Sacahajá, Quiché) (monog., full bibliog.); Griscom, Bull. Amer. Mus. N. H., 64, p. 362, 1932—Uspantan and Momostenango, Guatemala; idem, Bull. Mus. Comp. Zool., 75, p. 419, 1934—Taxco, Guerrero.

*Spizella passerina mexicana* Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 403, 1928—Chivelá, Oaxaca.

*Range*.—Southern Mexico, from Vera Cruz, Tlaxcala, Michoacan, Jalisco, and Nayarit south to Chiapas, and the adjacent section of northwestern Guatemala (Dept. El Quiché).

3: Mexico (Jalapa, Vera Cruz, 2; Cuernavaca, Morelos, 1).

<sup>1</sup> Birds from the Pacific coast (Vancouver Island to San Pedro Mártir, Lower California) are slightly smaller and not quite so pale. They have been separated as *S. p. stridula*. The characters are stated to be fairly constant to the west of the Sierra Nevada and Cascades, but in the higher sierras of California and eastwards among the Great Basin Ranges the Chipping Sparrows are said to be variously intermediate to typical *arizonae*. The fourth edition of the A. O. U. Check List refuses to admit this race, however, and we have not enough material to form an independent judgment as to its merits. Birds from western Chihuahua (and probably also those from northwestern Durango) are, according to van Rossem, intergrades between *arizonae* and *mexicana*. Cf. *S. s. arizonae* Miller, Bull. Amer. Mus. N. H., 22, p. 174, 1906 (Villa Ocampo, Matalotes, Río Sestín, Arroyo del Buey, and Guanaceví, northwestern Durango) and *S. p. mexicana* van Rossem, Bull. Mus. Comp. Zool., 77, p. 488, 1934 (Pinos Altos, Chihuahua). They have since been separated as *S. p. atremaeus* Moore (Proc. Biol. Soc. Wash., 50, p. 203, Nov. 30, 1937—type, from Los Frailes, Chihuahua, in coll. of R. T. Moore).

**\**Spizella passerina pinetorum* Salvin. GUATEMALAN CHIPPING SPARROW.**

*Spizella pinetorum* Salvin, Proc. Zool. Soc. Lond., 1863, p. 189—"Peten, in regione campestri," Guatemala (type, from pine-ridge of Poctum, in Salvin-Godman Collection, now in British Museum); idem, Ibis, 1866, p. 193—pine-ridge of Poctum, Petén; Ridgway, Ibis, 1884, p. 44 (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 378, pl. 27, fig. 3, 1886—pine-ridge of Poctum and "Vera Paz," Guatemala; Ridgway, Proc. U. S. Nat. Mus., 10, p. 587, 1887—Segovia River, Honduras; Salvin, Ibis, 1888, p. 262—Ruatan Island, Honduras; Sharpe, Cat. Bds. Brit. Mus., 12, p. 663, 1888—Guatemala (near Poctum) and Ruatan Island; Salvin and Godman, Ibis, 1892, p. 326—Matagalpa, Nicaragua.

*Spizella socialis pinetorum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 314, 1901—Guatemala (Petén) south to Honduras (monog.); Austin, Bull. Mus. Comp. Zool., 69, p. 390, 1929—Augustine, Cayo District, British Honduras; Stone, Proc. Acad. Nat. Sci. Phila., 87, p. 417, 1932—San Juancito, Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 363, 1932—Petén, Guatemala.

*Spizella passerina pinetorum* van Tyne, Misc. Pub. Univ. Mich. Mus. Zool., 27, p. 42, 1935—Uaxactun, Petén, Guatemala.

**Range.**—Tropical pine forests of eastern Guatemala (Petén district), British Honduras, Honduras, and northeastern Nicaragua (Matagalpa, San Rafael del Norte).

2: Nicaragua (San Rafael del Norte, 2).

***Spizella passerina cicada* Dickey and van Rossem.<sup>1</sup> SALVADOR CHIPPING SPARROW.**

*Spizella passerina cicada* Dickey and van Rossem, Condor, 30, p. 359, Nov., 1928—San José del Sacare, Dept. Chalatenango, El Salvador (type in coll. of Donald R. Dickey, Pasadena).

**Range.**—Pine forests along the Pacific slope of the Cordillera in El Salvador.

**\**Spizella pallida* (Swainson). CLAY-COLORED SPARROW.**

*Emberiza pallida* Swainson, in Swainson and Richardson, Faun. Bor.-Amer., 2, "1831," p. 251, pub. Feb., 1832—Carlton House, Saskatchewan (type in Swainson Collection, now in the University Museum, Cambridge, Eng.).

*Emberiza shattuckii* Audubon, Bds. Amer., 8vo ed., 7, p. 347, pl. 493, 1843—Fort Union, Nebraska (type in U. S. National Museum).

<sup>1</sup> *Spizella passerina cicada* Dickey and van Rossem: Very close to *S. p. pinetorum*, but gray of rump and hind neck slightly paler and with the blackish nuchal markings reduced to some broken streaks laterally; reddish cap slightly paler, burnt sienna rather than chestnut, and more extended posteriorly; under parts slightly darker gray.

This form needs renewed comparison with *S. p. pinetorum*, of which material was very scarce when the Salvador race was described.

*Spizella pusio*<sup>1</sup> Sharpe, Cat. Bds. Brit. Mus., 12, p. 666, 1888—North America and Puebla, Mexico.

*Spizella pallida* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 324, 1901 (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 365, 1905—Escuinapa, Sinaloa; idem, l.c., 22, p. 174, 1906—Rosario and Rancho Baillon, Durango; Phillips, Auk, 28, p. 88, 1911—Matamoros and San Fernando, Tamaulipas; Grinnell, Univ. Calif. Pub. Zool., 32, p. 166, 1928—Cape district, Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 301, 1931—Sarie, Obregón, Tesia, Chinobampo, and Guirocoba, Sonora; Griscom, Bull. Amer. Mus. N. H., 64, p. 363, 1932—Sacapulas, Guatemala; idem, Bull. Mus. Comp. Zool., 75, p. 419, 1934—Chilpancingo, Guerrero; van Rossem, l.c., 77, p. 489, 1934—Alamos, Sonora, and Chihuahua.

*Range*.—Breeds in North America from southern Mackenzie (Great Slave Lake), central Manitoba, and Michigan (Isle Royale) to western Montana, southeastern Colorado, northern Nebraska, and northwestern Illinois; winters from southern New Mexico and southern Texas to Cape San Lucas, Lower California, southern Mexico, and Guatemala (one record from Sacapulas).

23: Saskatchewan (Lake Johnston, Moose Jaw, 2); North Dakota (Carrington, 1); Minnesota (Twin Lake, Hennepin County, 1); Wisconsin (Beaver Dam, 1; Stevens Point, 1); Colorado (Fort Lyon, 8); Texas (Laredo, 1; Cooke County, 1; Kerrville, 2; Harlingen, 2; Gainesville, 1; Brownsville, 1); Mexico (Igualá, Guerrero, 1).

***Spizella breweri taverneri* Swarth and Brooks.<sup>2</sup> TIMBERLINE SPARROW.**

*Spizella taverneri* Swarth and Brooks, Condor, 27, p. 67, March 15, 1925—Spruce Mountain, ten miles east of Atlin, British Columbia (type in Museum of Vertebrate Zoology, Berkeley); Swarth, Univ. Calif. Pub. Zool., 30, p. 130, 1926—Monarch Mountain and Otter Creek; idem, Condor, 32, p. 255, 1930—Monarch Mountain, Atlin (nest and eggs descr.).

*Spizella breweri taverneri* Grinnell, Condor, 34, p. 231, 1932—half-a-mile southwest of Escondida, Otero County, New Mexico (Oct. 13, 1931) (crit.); van Tyne, Auk, 53, p. 92, 1936—Musquiz Canyon, Jeff Davis County, Texas (Mar. 9, 1935).

<sup>1</sup>*Fringilla pusio* Lichtenstein (Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, 1830; cf. Cabanis, Journ. Orn., 11, p. 56, 1863) is a nomen nudum.

<sup>2</sup>*Spizella breweri taverneri* Swarth and Brooks differs from the nominate race by slightly larger size, with rather longer tail; slenderer and dusky (instead of pale colored) bill; darker feet; darker coloration, with heavier streaking on top of head and back; darker flanks, and a tendency toward the development of narrow streaks on breast and flanks. Wing, 61½–66, (female) 60–62; tail, 62½–68, (female) 57–62; bill, 7–8½. (Adapted from Swarth and Brooks, l.c.)

Grinnell mentions certain specimens of the nominate race offering slight intergradation toward the characters of *taverneri*, which is, accordingly, more properly treated as a strongly marked geographical form.

*Range*.—Breeds on the mountains in the Atlin district of north-western British Columbia; on migration in southeastern British Columbia; winters in New Mexico (near Escondida, Otero County) and western Texas (Musquiz Canyon, Jeff Davis County).<sup>1</sup>

**\**Spizella breweri breweri* Cassin. BREWER'S SPARROW.**

*Spizella breweri* Cassin, Proc. Acad. Nat. Sci. Phila., 8, No. 1, Jan.-Feb., p. 40, pub. Mar. 25, 1856—"Western North America, California, New Mexico" (type, from Black Hills, North Dakota, in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 30, 1899, and Grinnell, Univ. Calif. Pub. Zool., 38, p. 323, 1932); Sharpe, Cat. Bds. Brit. Mus., 12, p. 668, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 327, 1901 (monog., full bibliog.); Brewster, Bull. Mus. Comp. Zool., 41, p. 145, 1902—La Paz, Triunfo, San José del Cabo, and Carmen Island, Lower California; Taylor, Univ. Calif. Pub. Zool., 7, p. 393, 1912—northern Nevada; Grinnell, l.c., 14, p. 171, 1914—Colorado Valley, California; idem, l.c., 32, p. 167, 1928—Lower California (winter visitant); Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 327, 1929—southern Arizona; Grinnell, Dixon, and Linsdale, Univ. Calif. Pub. Zool., 35, p. 425, 1930—Lassen Peak region, California (crit.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 301, 1931—Sonora (Tecoripa, Obregón, Tésia, Guaymas, twelve miles west of Magdalena, Sásabe Valley).

*Spizella breweri breweri* Oberholser, Sci. Pub. Clevel. Mus. N. H., 1, p. 107, 1930—Huachuca Mountains, Arizona; van Rossem, Bull. Mus. Comp. Zool., 77, p. 489, 1934—Sonora (Guaymas, Oposura, Granados) and Chihuahua.

*Range*.—Breeds in the Rocky Mountains of North America, from southeastern British Columbia, southern Alberta, east-central Montana, and northwestern Nebraska south to southern California, southern Arizona, and central Texas;<sup>2</sup> winters from southern California and Texas south in Mexico through Lower California to Jalisco.

44: California (Riverside, 1; San Diego County, 1); Colorado (Hot Sulphur Springs, 2; Denver, 1; Fort Lyon, 3); Arizona (Phoenix, 3; Desert Wells, 2; Tucson, 3; Benson, 1; Fort Lowell, 3; Fort Mojave, 1; Fairbank, 1; Calabasas, 2; Huachuca Mountains, 2); New Mexico (Deming, 14); Texas (El Paso, 1; Crystal City, 1; Brownsville, 1); Lower California (La Paz, 1).

<sup>1</sup> Griscom's record (Auk, 45, p. 509, 1928) of *S. taverneri* from near Cameron, Madison County, Montana (Sept. 14, 1927), proves to have been based on an individual of *S. b. breweri* of slightly aberrant coloration. Cf. Grinnell, Condor, 34, pp. 231-232, 1932.

<sup>2</sup> According to Grinnell, birds from Montana, Wyoming, and northern California show certain minor tendencies toward the characters of *S. b. taverneri*.



**\*Spizella pusilla pusilla** (Wilson). EASTERN FIELD SPARROW.

*Fringilla pusilla* Wilson, Amer. Orn., 2, p. 121, pl. 16, fig. 2, 1810—Pennsylvania=Philadelphia (type in Peale's Museum, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 386, 1930).

*Spizella agrestis* Coues, Proc. Acad. Nat. Sci. Phila., 1875, p. 351—new name for *Fringilla pusilla* Wilson.

*Spizella pusilla* Sharpe, Cat. Bds. Brit. Mus., 12, p. 664, 1888 (monog.).

*Spizella pusilla pusilla* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 318, 1901 (monog., full bibliog.).

*Range*.—Breeds in eastern North America, from southern Minnesota, Michigan, Quebec, Magdalen Islands, and southern Maine south to central Texas and Louisiana, and northern Florida; winters in the southern parts of its breeding range to the Gulf coast.

118: New York (Shelter Island, 6; Holley, 2; North Haven, 1); Massachusetts (unspecified, 2; Natick, 1); Connecticut (East Hartford, 14); New Jersey (Englewood, 1); Rhode Island (Fruit Hill, 1); North Carolina (Raleigh, 3); Wisconsin (Beaver Dam, 12); Illinois (Beach, Lake County, 3; Deerfield, 1; Lake Forest, 3; Glenview, Cook County, 1; Chicago, 4; Hegewisch, 1; Homewood, 1; Joliet, 10; Momence, 2; Henry, 1; Mound City, 1; Grand Chain, 7; Brainerd, 1; Olive Branch, 1); Indiana (Brookville, 1); Ohio (Columbus, 1); Iowa (Hillsboro, 2); Arkansas (Winslow, 1); Mississippi (Holly Springs, 8; Vicksburg, 1); Texas (Waring, 1); Florida (Nassau County, 1; Santa Rosa Island, 4; Town Point, Santa Rosa County, 3; Mary Esther, 12; Gainesville, 2; unspecified, 1).

**\*Spizella pusilla arenacea** Chadbourne. WESTERN FIELD SPARROW.

*Spizella pusilla arenacea* Chadbourne, Auk, 3, p. 248, April, 1886—Laredo, southern Texas (type in coll. of A. P. Chadbourne, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 386, 1930); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 320, 1901 (monog., full bibliog.); Phillips, Auk, 28, p. 88, 1911—Matamoros, Tamaulipas, Mexico; Griscom and Crosby, Auk, 43, p. 25, 1926—Lomita (Feb. 22) and El Sauz (Dec. 12), lower Rio Grande, Texas.

*Range*.—Breeds in the western United States from southeastern Montana and southwestern North Dakota south to central Nebraska; winters from south of its breeding range to southern Texas, Louisiana, and northeastern Mexico (Monterey, Nuevo León; Matamoros, Tamaulipas).

6: Texas (Kerr County, 1; Ingram, 1; Waring, 1; Giddings, 1; Corpus Christi, 2).

**Spizella wortheni** Ridgway. WORTHEN'S SPARROW.

*Spizella wortheni* Ridgway, Proc. U. S. Nat. Mus., 7, p. 259, Sept., 1884—Silver City, New Mexico (type in U. S. National Museum); Sharpe, Cat. Bds. Brit. Mus., 12, p. 666, 1888—New Mexico and "western Texas"; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 321, 1901 (monog.); Thayer, Condor, 27, p. 34, 1925—northern Tamaulipas (eggs descr.).

*Range*.—Breeds in the southwestern United States (Silver City, New Mexico) south to northern Tamaulipas, Mexico; winters to southern Mexico (Chalchicomula, Puebla).

**Spizella atrogularis caurina** Miller.<sup>1</sup> SAN FRANCISCO BLACK-CHINNED SPARROW.

*Spizella atrogularis caurina* Miller, Condor, 31, p. 206, Sept. 16, 1929—Las Trampas Peak, Contra Costa County, California (type in Museum of Vertebrate Zoology, Berkeley); van Rossem, Condor, 37, p. 283, 1935 (crit., range).

*Range*.—Coast range foothills of central California, in Contra Costa and Alameda counties; winter home unknown.

**\*Spizella atrogularis cana** Coues.<sup>2</sup> CALIFORNIA BLACK-CHINNED SPARROW.

*Spizella cana* (Baird MS.) Coues, Proc. Acad. Nat. Sci. Phila., 1866, No. 1, Jan.-Mar., p. 88, pub. June 11, 1866—Cape San Lucas, Lower California (type in U. S. National Museum).

*Spizella atrigularis* (not *Spiniles atrogularis* Cabanis) Sharpe, Cat. Bds. Brit. Mus., 12, p. 669, 1888—part, spec. b, c, Santa Anna river and Cajón Pass, California.

*Spizella atrogularis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 322, 1901—part, southern California and Lower California; Brewster, Bull. Mus. Comp. Zool., 41, p. 146, 1902—Cape district, Lower California.

*Spizella atrogularis cana* Grinnell and Swarth, Auk, 43, p. 478, 1926—part, California (excl. of Alameda County) and Lower California (crit.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 167, 1928—Lower California; van Rossem, Condor, 37, p. 283, 1935—California from Monterey and Inyo counties south to about lat. 30° N. in Lower California (crit.).

*Range*.—Foothills of California from Monterey and Inyo counties south to about lat. 30° N. in Lower California; winters from Los Angeles County, California, south to Cape San Lucas.

3: California (Sweet Water River, San Diego County, 1); Lower California (El Valle, 2).

<sup>1</sup> *Spizella atrogularis caurina* Miller: Nearest to *S. a. cana*, but larger, and coloration darker and grayer; approaching *S. a. atrogularis* in depth of color, but more grayish or slaty (less brownish), the back not nearly so reddish, and with lores and chin-patch, while darker than in *cana* and *evura*, less deeply black. Wing (males), 61½-65; tail, 69-70½; bill, 8-9.

<sup>2</sup> *Spizella atrogularis cana* Coues: Close to *S. a. evura*, but smaller and of slightly darker, less purely gray coloration. Wing (males), 60-64; tail, 61-65.

**Spizella atrogularis evura** Coues.<sup>1</sup> ARIZONA BLACK-CHINNED SPARROW.

*Spizella evura* Coues, Proc. Acad. Nat. Sci. Phila., 1866, No. 1, Jan.-Mar., p. 87, pub. June 11, 1866—based on *Spizella* sp. Coues, Ibis, 1865, pp. 118, 164; Fort Whipple, Arizona (cotypes in U. S. National Museum; cf. van Rossem, Condor, 37, p. 283, 1935).<sup>2</sup>

*Spizella atrigularis* (not *Spinities atrogularis* Cabanis) Sharpe, Cat. Bds. Brit. Mus., 12, p. 669, 1888—part, spec. a, Fort Whipple, Arizona.

*Spizella atrogularis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 322, 1901—part, Arizona and New Mexico; Grinnell, Univ. Calif. Pub. Zool., 12, p. 172, 1914—The Needles, Colorado Valley, southeastern California.

*Spizella atrogularis atrogularis* Grinnell and Swarth, Auk, 43, p. 476, 1926—part, Arizona and Colorado River (opposite The Needles), California (crit.); van Rossem, Bull. Mus. Comp. Zool., 77, p. 489, 1934—Oposura, Sonora.

*Spizella atrogularis evura* van Rossem, Condor, 37, pp. 282, 283, 1935 (crit., range).

*Range*.—Southwestern United States, in southern Nevada (Charleston Mountains), southeastern California (Providence Mountains and Colorado Valley, opposite The Needles), southern Arizona (north to the Hualpai Mountains and Fort Whipple), and southwestern New Mexico, and adjacent parts of Sonora (Oposura); winters probably in northwestern Mexico.

**Spizella atrogularis atrogularis** (Cabanis). MEXICAN BLACK-CHINNED SPARROW.

*Spinities atrogularis* Cabanis, Mus. Hein., 1, p. 133, Oct., 1851—Mexico (type in Berlin Museum).

*Struthus atrimentalis* Couch, Proc. Acad. Nat. Sci. Phila., 7, p. 67, April, 1854—Agua Nueva, State of Coahuila, Mexico (type in U. S. National Museum).

*Spizella atrigularis* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 380, 1886—part, Mexico (Agua Nueva, Coahuila; Guanajuato; Chapulco); Sharpe, Cat. Bds. Brit. Mus., 12, p. 669, 1888—part, spec. d-h, Puebla, Mexico.

*Spizella atrogularis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 322, 1901—part, Mexican plateau; Griscom, Bull. Mus. Comp. Zool., 75, p. 419, 1934—Chilpancingo, Guerrero.

<sup>1</sup> *Spizella atrogularis evura* Coues: Similar to *S. a. atrogularis*, but with slightly larger bill; coloration decidedly paler and grayer; back paler, more sandy or clay-color; black gular patch in adult males duller and more restricted; and lores gray or slaty, not velvety black. Wing (males), 64-67; tail, 68-74.

<sup>2</sup> Though the name *evura* was merely proposed in synonymy, Coues' reference to "The Ibis," where a short characterization of the bird is given, seems to make it valid under the Rules.

*Spizella atrogularis atrogularis* Grinnell and Swarth, Auk, 43, p. 476, 1926—part, Mexican plateau; van Rossem, Condor, 37, pp. 282, 284, 1935—southern Mexico (crit.).

*Range*.—Resident in the eastern and southern portions of the Mexican tableland from southern Coahuila south through Guajuato, Hidalgo, Mexico, and Tlaxcala to Puebla and Guerrero, and west to Jalisco (Lagos).

### Genus ZONOTRICHIA Swainson<sup>1</sup>

*Zonotrichia* Swainson, in Swainson and Richardson, Faun. Bor.-Amer., 2, "1831," p. 493, pub. Feb., 1832—type, by subs. desig. (Bonaparte, Giorn. Arcadico, 52, p. 206, 1831), *Fringilla pensylvanica* Latham=*Fringilla albicollis* Gmelin.

*Zonitrichia* Bonaparte, Giorn. Arcad., 52, p. 206, 1831—emendation.

*Brachyspiza* Ridgway,<sup>2</sup> Auk, 15, p. 224, July, 1898—type, by orig. desig., *Fringilla capensis* P. L. S. Müller.

### \**Zonotrichia querula* (Nuttall). HARRIS'S SPARROW.

*Fringilla querula* Nuttall, Man. Orn. U. S. and Canada, 2nd ed., 1, p. 555, 1840—a few miles west of Independence, Missouri (location of type, if there was any, unknown).

*Fringilla comata* Wied, Reise Nord-Amer., 2, p. 352 (footnote), 1841—in the bushes of the Missouri and near the Platte River (type in Wied Collection, now in the American Museum of Natural History, New York); idem, Journ. Orn., 6, p. 279, 1858—Bellevue, not far from the Platte River, Nebraska (full descr.).

*Fringilla harrisi* Audubon, Bds. Amer., 8vo ed., 7, p. 331, 1843—upper Missouri (cotypes now in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 18, 1899).

*Zonotrichia querula* Sharpe, Cat. Bds. Brit. Mus., 12, p. 597, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 331, 1901 (monog., full bibliog.); Harris, Auk, 36, p. 180, 1919 (history); Nice, Condor, 31, p. 57, 1929—Oklahoma (song, notes); Swenk and Stevens, Wils. Bull., 41, pp. 129–177, col. pl., 1929 (monog., range, migration, habits, plumages); Semple and Sutton, Auk, 49, pp. 166–183, pls. 6–8, 1932—Churchill, Manitoba (habits, nest, and eggs).

*Range*.—Breeds in the Hudsonian zone at Fort Churchill, Hudson Bay, Artillery Lake, Mackenzie, and probably at Great Bear Lake and in the district just south of the Barren Grounds; in migration to Ontario, southwestern Ohio, eastern Illinois, Michigan, and west to

<sup>1</sup> *Hortulanus* Vieillot (Hist. Nat. Ois. Amér. Sept., 1, pp. iii, iv, 1807), which has been so much discussed (cf. Allen, Bull. Amer. Mus. N. H., 23, p. 360, 1907; i.c., 24, p. 23 [footnote], 1907; Stone, Auk, 24, p. 193, 1907; Allen, Auk, 25, p. 223, 1908), is now rejected as having no standing.

<sup>2</sup> Not separable from *Zonotrichia*. Cf. van Rossem, Auk, 46, pp. 548–549, 1929.

Montana, Wyoming, and Colorado (casually in South Dakota in July); winters from northern Kansas, southern Nebraska, and western Missouri to southern Texas; casual in British Columbia; accidental in California, Oregon, Washington, and Massachusetts.

24: Saskatchewan (Lake Johnston, Moose Jaw, 1); South Dakota (Wakonda, 3); Iowa (Knoxville, 1); Illinois (Chicago, 1); Indiana (Miller, 1); Missouri (unspecified, 1); Kansas (Hamilton, 5; Saline County, 6; Greenwood County, 2; Blue Valley, 1); Texas (Kendall County, 1; Gainesville, 1).

**\**Zonotrichia leucophrys leucophrys* (Forster).<sup>1</sup> WHITE-CROWNED SPARROW.**

*Emberiza leucophrys* Forster, Philos. Trans., 62, p. 426, 1772—Severn River, west shore of Hudson Bay (location of type unrecorded).

*Spizella maxima* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 922 (foot-note), Dec., 1853—Mexico (type in Brussels Museum; descr. of immature).

*Zonotrichia leucophrys oriantha* Oberholser, Sci. Pub. Clevel. Mus. N. H., 4, No. 1, p. 12, Sept. 19, 1932—Barley Camp, Warner Mountains, fourteen miles southwest of Adel, Oregon (type in Cleveland Museum of Natural History);<sup>2</sup> van Rossem, Bull. Mus. Comp. Zool., 77, p. 489, 1934—Chihuahua and Sonora.

*Zonotrichia leucophrys* Sharpe, Cat. Bds. Brit. Mus., 12, p. 603, 1888 (in part); Winge, Medd. Grønland, 21, p. 297, 1899—Greenland; van Rossem, Trans. San Diego Soc. N. H., 6, p. 302, 1931—Sonora (El Doctór, Tecoripa, Obregón, Tésia, Chinobampo, twelve miles west of Magdalena).

*Zonotrichia leucophrys leucophrys* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 336, 1901 (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 265, 1905—Escuinapa, Sinaloa; idem, l.c., 22, p. 175, 1906—Rosario and Rancho Baillon, Durango (Dec., May 7 to 10); Phillips, Auk, 28, p. 88, 1911—Matamoros, Tamaulipas; Grinnell, Univ. Calif. Pub. Zool., 32, p. 164, 1928—Lower California; van Rossem, Bull. Mus. Comp. Zool., 77, p. 489, 1934—Chihuahua.

**Range.**—Breeds in the Rocky Mountains of North America from British Columbia and Oregon south to central California, east to Wyoming and southern New Mexico, and from tree limit in northern Manitoba and Quebec to central Manitoba, southern Quebec, and

<sup>1</sup> *Fringilla canadensis* Boddaert (Tabl. Pl. Enl., p. 13, 1783) and *Fringilla monticola* Gmelin (Syst. Nat., 1, [2], p. 912, 1789), exclusively or chiefly based upon "Le Moineau du Canada" Brisson (Orn., 3, p. 102) and "Moineau du Canada" Daubenton (Pl. Enl., pl. 223, fig. 2=Buffon's Soulciet), while possibly referring to a juvenile specimen of the White-crowned Sparrow, cannot be determined with absolute certainty. Cf. Oberholser, Proc. Biol. Soc. Wash., 31, p. 98, 1918, and l.c., 32, p. 139, 1919.

<sup>2</sup> The supposed racial color characters seem to be those of the worn summer plumage, and the slightly larger average dimensions hardly justify the recognition of a separate form.

southern Greenland; winters from southern Lower California, southern Arizona and Kansas, and the Ohio Valley south to the Gulf coast, and over the Mexican plateau to Sinaloa, Durango, Jalisco, and Guanajuato.

99: Labrador (Curlew Harbor, 2; Hopedale, 1; Indian Harbor, 5); Maine (Lincoln, 1); New York (Suffolk County, 1; Shelter Island, 1); Massachusetts (Boston, 2; Great Island, 1); Wisconsin (Beaver Dam, 2; Meridian, 1); Michigan (Grand Rapids, 1); Illinois (Deerfield, 1; Chicago, 4; Worth, 1; Joliet, Will County, 1; Grand Tower, 2; Grand Chain, 2; Bowmanville, 1); Indiana (Bluffton, 1); Ohio (Columbus, 1); Mississippi (Holly Springs, 1); California (Lassen County, 1; Plumas County, 1; Placer County, 1; Los Baños, 2; Riverside, 2; San Diego, 2; Blue Canyon, 1); Idaho (Bear River, Bear Lake County, 1); Colorado (Denver, 1; Williams Range, Routt County, 1; Routt County, 2; Fort Lyon, 3; unspecified, 1); Arizona (Tucson, 9; Calabasas, 2); New Mexico (Deming, 2); Texas (Brill, 1; El Paso, 2; Laredo, 2; Port Lavaca, 3; Corpus Christi, 21; Harlingen, 3); Mexico (Nuevo Laredo, Tamaulipas, 1); Lower California (San José del Cabo, 1).

**\**Zonotrichia leucophrys gambelii* (Nuttall). GAMBEL'S SPARROW.**

*Fringilla gambelii* Nuttall, Man. Orn. U. S. and Canada, 2nd ed., 1, p. 556, 1840—near Fort Walla Walla, Washington (type formerly in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 19, 1899).

*Zonotrichia leucophrys* var. *intermedia* Ridgway,<sup>1</sup> Bull. Essex Inst., 5, No. 12, p. 198, Dec., 1873—"middle Province of the U. S., north to Alaska in the interior" (type, from Fort Kenai, Alaska, in U. S. National Museum).

*Zonotrichia leucophrys* (not *Emberiza leucophrys* Forster) Sharpe, Cat. Bds. Brit. Mus., 12, p. 603, 1888 (in part).

*Zonotrichia leucophrys gambelii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 339, 1901 (monog., full bibliog.); Phillips, Auk, 28, p. 88, 1911—Mata-moros, Tamaulipas; Grinnell, Univ. Calif. Pub. Zool., 32, p. 165, 1928—Lower California; idem, Condor, 30, p. 189, 1928 (crit.).

*Zonotrichia leucophrys gambeli* Swarth, Univ. Calif. Pub. Zool., 24, p. 241, 1922—Telegraph Creek, Stikine region, British Columbia; idem, l.c., 24, p. 352, 1924—Skeena River region, British Columbia.

*Zonotrichia gambelii* Swarth, Univ. Calif. Pub. Zool., 30, p. 121, 1926—Atlin region, British Columbia (crit.); idem, Proc. Calif. Acad. Sci., (4), 18, p. 326, 1929—southern Arizona (transient); idem, Pacif. Coast Avif., 22, p. 52, 1934—Nunivak Island.

<sup>1</sup> First published as a nomen nudum by Ridgway, Bull. Essex Inst., 5, No. 11, p. 182, Nov., 1873.

*Zonotrichia gambelii gambelii* van Rossem, Trans. San Diego Soc. N. H., 6, p. 302, 1931—Sonora (El Doctór, Pesqueira, Tecoripa, San Javier, Obregón, Tésia); idem, Bull. Mus. Comp. Zool., 77, p. 489, 1934—Chihuahua and Sonora (Guaymas, Cumpas, Nacozari, Oposura).

*Range*.—Breeds from the tree limit in northwestern Alaska and northern Mackenzie south to central Montana and west to the coast mountains of southwestern Alaska and southeastern British Columbia; winters from California and Utah south to San Luis Potosí, Sinaloa, and Lower California; casual in the eastern states.

72: Alaska (Nome, 2); Saskatchewan (Lake Johnston, Moose Jaw, 2); Oregon (Logan, 1); California (Placer County, 5; Saint Helena, 1; Pescadero, 1; Palo Alto, 3; Pasadena, 3; Stockton, 2; San José, 2; Los Gatos, 3; Sansevine Flats, 1; San Bernardino, 1; Menlo Park, 1; Colton, 1; San Diego, 3; Battle Creek, 1; Drytown, 1; San Clemente Island, 3); Colorado (Buford, 1; Berthoud's Pass, 1; El Paso County, 1; Fremont County, 1; Fort Lyon, 2); Arizona (Fort Mojave, 4; Phoenix, 2; Calabasas, 1); New Mexico (Deming, 12; Mimbres, 1); Texas (El Paso, 10; Port Lavaca, 1); Mexico (Cerro Blanco, Sonora, 1; Sabinas, Coahuila, 1); Illinois (Beach, Lake County, 1).

**\**Zonotrichia leucophrys pugetensis* Grinnell.<sup>1</sup> PUGET SOUND SPARROW.**

*Zonotrichia leucophrys pugetensis* Grinnell, Condor, 30, p. 187, May 15, 1928—Parksville, Vancouver Island, British Columbia (type in Museum of Vertebrate Zoology, Berkeley).

*Zonotrichia leucophrys nuttalli* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 342, 1901—part, Pacific coast of British Columbia, Washington, and Oregon.

[*Zonotrichia leucophrys*] subsp. *a* *Zonotrichia gambeli* (not *Fringilla gambelii* Nuttall) Sharpe, Cat. Bds. Brit. Mus., 12, p. 606, 1888—part, Fort Simpson, Vancouver Island, and British Columbia.

*Range*.—Breeds in the Pacific coast belt of North America from Vancouver Island and the mouth of the Fraser River, British Columbia, south to extreme northwestern California (Mendocino County); winters south to San Diego County, California.

6: Oregon (Tillamook, 2; Salem, 1); California (Nicasio, 3; Ascata, 1).

**\**Zonotrichia leucophrys nuttalli* Ridgway. NUTTALL'S SPARROW.**

*Zonotrichia leucophrys nuttalli* Ridgway, Auk, 16, p. 36, Jan., 1899—new name for *Z. gambelii* auct., not of authors; idem, Bull. U. S. Nat. Mus., 50,

<sup>1</sup>*Zonotrichia leucophrys pugetensis* Grinnell: Nearly related to *Z. l. nuttalli*, but with slightly smaller bill, shorter hind claw, slightly longer wings and tail; more pointed wings; narrower and less intensely black dorsal streaks on a grayer ground color; and more grayish under parts with less deeply brown flanks. Wing (type), 74½; tail, 72½; bill, 8½.

Part 1, p. 342, 1901—part, California (type, in U. S. National Museum, stated to be from Santa Cruz, California; cf. Grinnell, Condor, **30**, p. 188, 1928, and Univ. Calif. Pub. Zool., **38**, p. 309, 1932); Hubbs, Auk, **35**, pp. 321–326, 1918 (ecology, range in California).

[*Zonotrichia leucophrys*] subsp.  $\alpha$  *Zonotrichia gambeli* (not *Fringilla gambelii* Nuttall) Sharpe, Cat. Bds. Brit. Mus., **12**, p. 606, 1888—part, California.

*Range*.—Pacific coast of California from Mendocino County to Point Concepcion, Santa Barbara County, including the San Francisco Bay region.<sup>1</sup>

30: California (Nicasio, 3; San Francisco, 2; Hayward, 1; Oakland, 1; San José, 3; Santa Cruz, 1; Los Gatos, 1; Monterey, 11; Berryessa, 1).

**\**Zonotrichia coronata* (Pallas). GOLDEN-CROWNED SPARROW.**

*Emberiza coronata* Pallas, Zoogr. Rosso-Asiat., **2**, p. 44, 1811—"in insula Kadiak"—Kodiak Island, Alaska.

*Fringilla aurocapilla* Nuttall, Man. Orn. U. S. and Canada, 2nd ed., **1**, p. 555, 1840—near Fort Vancouver, Washington (type in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., **51**, p. 19, 1899).

*Zonotrichia galapagoensis* Bonaparte, Consp. Gen. Av., **1**, (2), p. 479, end of 1850—"Galapagos," errore= California (type in Paris Museum examined); Salvin, Trans. Zool. Soc. Lond., **9**, p. 491 (footnote), 1876 (crit.).

*Zonotrichia coronata* Sharpe, Cat. Bds. Brit. Mus., **12**, p. 600, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 333, 1901 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., **5**, p. 401, 1910—Prince William Sound region, Alaska; Swarth, l.c., **24**, p. 241, 1924—Stikine region, British Columbia; idem, l.c., **24**, p. 353, 1924—Skeena River region, British Columbia; idem, l.c., **30**, p. 124, pl. 4 (young), 1926—Atlin region, British Columbia (descr. of young, nest, and eggs); Grinnell, l.c., **32**, p. 165, 1928—Lower California; Swarth, Pacif. Coast Avif., **22**, p. 52, 1934—Sitkadiak and Nunivak Islands, Alaska.

*Range*.—Breeds in northwestern North America, from Kotzebue Sound to the Shumagin Islands, Alaska Peninsula, and Kodiak Island to British Columbia; winters from Oregon south through California to the Cape district of Lower California, also on the Santa Barbara Islands and casually on Guadalupe Island; in migration to western Alberta, Nevada, and Colorado; accidental in Massachusetts and Wisconsin.

39: Alaska (Nome, 2); Oregon (Tillamook, 2); California (Placer County, 1; San Dimas Canyon, 2; Saint Helena, 1; Nicasio, 6; Sebastopol, 1; San Geronimo, Marin County, 2; Palo Alto, 5; San

<sup>1</sup> No authentic record exists for Lower California (cf. Grinnell, Univ. Calif. Pub. Zool., **32**, p. 244, 1928).



José, 3; Los Gatos, 2; Mariposa, 3; Pacific Grove, 1; Monterey, 2; Carmel, Monterey County, 2; Alhambra, Los Angeles County, 1; Los Angeles County, 1; Lakeside, 1; Searsville, San Mateo County, 1).

**\*Zonotrichia albicollis** (Gmelin). WHITE-THROATED SPARROW.

*Fringilla albicollis* Gmelin, Syst. Nat., 1, (2), p. 921, 1789—based on "The White-throated Sparrow" Edwards, Glean. Nat. Hist., 2, p. 198, pl. 304; Philadelphia, Pennsylvania.

*Fringilla pensylvanica* Latham, Ind. Orn., 1, p. 445, 1790—new name for *Fringilla albicollis* Gmelin.

*Zonotrichia albicollis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 598, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 343, 1901 (monog., full bibliog.); Noble, Bull. Mus. Comp. Zool., 62, p. 558, 1919—Deer Lake, Newfoundland (breeding); Swarth, Univ. Calif. Pub. Zool., 24, p. 354, 1924—Kispiox Valley, Skeena River region, British Columbia (June 21; breeding); Grinnell, l.c., 32, p. 165, 1928—Guadalupe Island, Lower California.

*Range*.—Breeds in northern North America, from northern Mackenzie (Fort Good Hope), northern Manitoba, central Quebec, and Newfoundland to central Alberta, southern Montana, central Minnesota, and Wisconsin, southern Ontario, northern New England, Nova Scotia, and the mountains of northeastern Pennsylvania, New York, and Massachusetts, also locally in British Columbia (Skeena region); winters from Missouri, the Ohio Valley, southern Pennsylvania, Connecticut, and Massachusetts south to Florida and northeastern Mexico; casual in Oregon, California, Utah, and Colorado, and on Guadalupe Island, Lower California.

146: Maine (Upton, 1); New York (Suffolk County, 1; Shelter Island, 4; Brockport, 1); Massachusetts (Brookline, 4; Natick, 2; Dighton, 1); Connecticut (East Hartford, 19; New Haven, 1); New Jersey (Englewood, 4); Michigan (McCargo's Cove, Isle Royale, 1); Wisconsin (Woodruff, Vilas County, 1; Beaver Dam, 11); Illinois (Beach, Lake County, 2; Deerfield, 2; Lake Forest, 4; Highland Park, 2; Chicago, 12; Hegewisch, 3; Worth, 1; Hinsdale, 1; Glen Ellyn, 1; Joliet, 8; Henry, 2; Warsaw, 2; Mound City, 3; Grand Tower, 5; Villa Ridge, 2; Grand Chain, 16); Indiana (Dune Park, 1; Bluffton, 1); Ohio (Columbus, 4); Maryland (Howard County, 1); Arkansas (Winslow, 2); Texas (Brill, 1); Mississippi (Vicksburg, 5); Georgia (Sapelo Island, 2); Florida (Town Point, Santa Rosa County, 9; Santa Rosa Island, 1; Pilot Town, 1; Gainesville, 1).

**\**Zonotrichia capensis septentrionalis* Griscom.<sup>1</sup> GUATEMALAN SPARROW.**

*Zonotrichia capensis septentrionalis* Griscom, Amer. Mus. Novit., **438**, p. 12, Dec. 15, 1930—Chichicastenango, Guatemala (type in Dwight Collection, in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., **64**, p. 363, 1932—Guatemala (many localities); Carriker and de Schauensee, Proc. Acad. Nat. Sci. Phila., **87**, p. 449, 1935—Tecpan, Guatemala.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Sclater and Salvin, Ibis, 1859, p. 18—Dueñas and plains of Antigua, Guatemala (nest and eggs descr.); Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 370, 1886—part, Guatemala (Guatemala City, Antigua, Dueñas, Quezaltenango, Altos of Guatemala, Coban); Sharpe, Cat. Bds. Brit. Mus., **12**, p. 610, 1888—part, spec. r'-u', Guatemala (Dueñas, Quezaltenango) and Mexico.

*Brachyspiza capensis peruviana* (not *Pyrgita peruviana* Lesson) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 347, 1901—part, Chiapas and Guatemala; Dearborn, Field Mus. Nat. Hist., Orn. Ser., **1**, p. 117, 1907—Guatemala City, Lake Atitlan, and Tecpan; (?)Stone, Proc. Acad. Nat. Sci. Phila., **84**, p. 342, 1932—San Juancito, Honduras.

*Range*.—Subtropical zone of southeastern Mexico, in State of Chiapas (San Cristóbal, Pinabete, near Comitán), Guatemala, and (?)Honduras (San Juancito).

12: Guatemala (Samac, Alta Vera Paz, 1; Volcan Tajumulco, San Marcos, 5; Quezaltenango, 2; Lake Atitlan, 2; near Tecpan, 2).

**\**Zonotrichia capensis costaricensis* Allen.<sup>2</sup> COSTA RICAN SPARROW.**

*Zonotrichia capensis costaricensis* Allen, Bull. Amer. Mus. N. H., **3**, p. 374, Sept. 29, 1891—San José, Costa Rica (type in the American Museum of Natural History, New York); Griscom, Amer. Mus. Novit., **438**, p. 11, 1930—Costa Rica and western Panama (crit.); idem, Bull. Mus. Comp. Zool., **78**, p. 381, 1935—mountains of Chiriquí and Veraguas.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Cabanis, Journ. Orn., **8**, p. 411, 1860—Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., **9**,

<sup>1</sup>*Zonotrichia capensis septentrionalis* Griscom: Very similar to *Z. c. costaricensis*, but less heavily streaked above, and the rufous nuchal collar less sharply defined, more gradually passing into the color of the back. The larger size is not a constant feature, since certain Costa Rican males have wings of 70 to 72 mm.

While no material from Honduras has been available for study, the birds of that country are more likely to pertain here than to *Z. c. costaricensis*. Fifteen skins from Chiapas agree well with a Guatemalan series.

<sup>2</sup>*Zonotrichia capensis costaricensis* Allen differs from the form of the Andes of Colombia and Ecuador by more richly rufous nuchal collar and whiter under parts with more black across the foreneck. While these differences are quite pronounced, when Costa Rican birds are compared with typical *Z. c. peruviana*, from the coast of Peru and extreme northern Chile, certain Colombian and Ecuadorian specimens run very close to *Z. c. costaricensis*. Specimens from Chiriquí are exactly like a Costa Rican series.

*Additional material examined*.—Costa Rica, 14; Boquete, Chiriquí, 5; Chitrá, Veraguas, 2.

p. 103, 1868—San José, Costa Rica; Frantz, Journ. Orn., 17, p. 301, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 190—Chiriquí (Volcan de Chiriquí), and Veraguas (Chitrá, Calovévora); Boucard, l.c., 1878, p. 57—San José, Cartago, Zárcero, and Volcan de Irazú, Costa Rica (eggs descr.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 370, 1886—part, Costa Rica (San José, Irazú) and Panama (Volcan de Chiriquí, Chitrá, Calovévora, Castillo); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 111, 1887—Costa Rica (Alajuela, Santa María de Dota, Cartago, San José); Sharpe, Cat. Bds. Brit. Mus., 12, p. 610, 1888—part, spec. l'-q', Panama (Chitrá, Castillo, south slope of Volcan de Chiriquí) and Costa Rica (Irazú, San José).

"*Zonotrichia*" *pileata* Ridgway, Proc. U. S. Nat. Mus., 5, pp. 496, 500, 1883—Volcan de Irazú and San José, Costa Rica.

*Brachyspiza capensis peruviana* (not *Pyrgila peruviana* Lesson) Ridgway, Auk, 15, p. 321, 1898—part, Costa Rica; idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 347, 1901—part, Costa Rica and Panama; Bangs, Proc. New Engl. Zool. Cl., 3, p. 70, 1902—Boquete and Volcan de Chiriquí, Panama; Carriker, Ann. Carnegie Mus., 6, p. 906, 1910—Costa Rica (habits, nest, and eggs); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 280, 1910—Coliblanco and Volcan de Turrialba, Costa Rica.

*Range*.—Upper Tropical and Subtropical zones of Costa Rica and western Panama (Chiriquí and Veraguas).

28: Costa Rica (Coliblanco, 16; Volcan de Turrialba, 9; San José, 3).

**\**Zonotrichia capensis peruviansis* (Lesson).<sup>1</sup> PERUVIAN SPARROW.**

*Pyrgila peruviansis* Lesson, L'Institut, 2, No. 72, p. 317, Sept. 27, 1834—Callao, Peru (location of type unknown); idem, in Bougainville, Journ. Navig. Thétis, 2, p. 325, 1837—Callao.

*Pyrgila peruviana* Lesson, Rev. Zool., 2, p. 45, 1839—vicinity of Lima, Peru (location of type unknown).

*Fringilla australis* (not of Latham) Peale, U. S. Expl. Exp., 8, p. 119, 1848—part, near Callao, Peru.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Sclater, Proc. Zool. Soc. Lond., 26, pp. 454, 552, 1858—Cuenca and Riobamba, Ecuador; idem, l.c., 27, p. 140, 1859—Pallatanga, Ecuador; idem, l.c., 28, p. 76, 1860—Panza, Ecuador; idem, Cat. Coll. Amer. Bds., p. 113, 1862—Cuenca, Ecuador, and "Bogotá," Colombia; Sclater and Salvin, Proc. Zool. Soc.

<sup>1</sup> *Zonotrichia capensis peruviansis* (Lesson) differs from *Z. c. chilensis* by the much broader black lateral crown-stripes.

This form undoubtedly requires subdivision, as has been intimated by both Chapman and Zimmer. While specimens from northern Chile (Tacna) agree in dimensions and coloration with those from the coast near Lima, the inhabitants of the interior as well as those from Ecuador and Colombia exhibit certain characters of their own. The problem should be studied with the assistance of extensive series from all parts of the Andes.

Seventy additional specimens from Colombia, Ecuador, and Peru examined.

Lond., 1867, p. 985—Islay and Arequipa, Peru; Wyatt, Ibis, 1871, p. 328—Cachiri and Pamplona Road, Colombia; Nation, Proc. Zool. Soc. Lond., 1874, p. 329—Lima; Taczanowski, l.c., 1874, p. 521—Lima, Maraynioc, and Pumamarca, Peru; idem, l.c., 1879, p. 230—Tambillo and Pacasmayo, Peru; Sclater and Salvin, l.c., 1879, p. 507—Retiro, Envigado, and Medellín, Colombia (eggs descr.); Taczanowski, l.c., 1880, p. 199—Cutervo, Peru; Salvin and Godman, Ibis, 1879, p. 200—Atanques, Colombia; idem, Ibis, 1880, p. 182—San Sebastian and Sierra Nevada de Santa Marta, Colombia; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 551—Cayandeled, Ecuador; idem, l.c., 1884, p. 294—Cechce, Ecuador; Berlepsch, Journ. Orn., 34, p. 295, 1884—Bucaramanga, Colombia; Taczanowski, Orn. Pér., 3, p. 45, 1886—Peru (Lima, Maraynioc, Pumamarca, Junfn, Acancocha, Chorillos, Cutervo, Tambillo, Pacasmayo); Sharpe, Cat. Bds. Brit. Mus., 12, p. 610, 1888—part, spec. x-f', Peru (Arequipa), Ecuador (Cuenca), and Colombia (Bogotá, Medellín, San Sebastian, Atanques, Sierra Nevada of Santa Marta); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 377—Lima, Peru; Salvin, Nov. Zool., 2, p. 7, 1895—Peru (Cajamarca, Cajabamba; Malca, Cajabamba; Huamachuco); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 26, 1899—Ecuador (Pun; Cuenca; La Concepción, Chota Valley; Lloa; Chillo Valley; Quito; Sigisig); Goodfellow, Ibis, 1901, p. 474—Ecuador (Quito and western Andes).

*Brachyspiza capensis peruviana* Ridgway, Auk, 15, p. 321, 1898 (part); Bangs, Proc. Biol. Soc. Wash., 12, p. 178, 1898—San Miguel, Colombia; idem, Proc. New Engl. Zool. Cl., 1, p. 79, 1899—San Sebastian and El Mamón, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 164, 1900—Santa Marta region; Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 347, 1901—part, Colombia to Peru; Chapman, Bull. Amer. Mus. N. H., 31, p. 568, 1917—Colombia (many localities); (?) idem, Bull. U. S. Nat. Mus., 117, p. 111, 1921—San Miguel Bridge, Idma, Torontoy, Ollantaytambo, Huaracundo Canyon, Ttica-Ttica, Cuzco, Calca, and La Raya, Peru;<sup>1</sup> Bangs and Noble, Auk, 35, p. 462, 1918—Huancabamba, Peru; Todd and Carriker, Ann. Carnegie Mus., 14, p. 531, 1922—San Lorenzo, Chirua, San Miguel, Cerro de Caracas, and Macotama, Santa Marta, Colombia (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 79, 1922—Quito and Cumbaya, Ecuador.

*Brachyspiza capensis* (not *Fringilla capensis* P. L. S. Müller) Hartert, Nov. Zool., 5, p. 485, 1898—Cayambé, Ecuador.

*Brachyspiza pileata* Piguet, Mém. Soc. Neuch. Sci. Nat., 5, p. 808, 1914—La Camelia, near Angelopolis, Colombia.

*Brachyspiza pileata peruviana* Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 76, 1928—Alunguicho and Volcan de Tumbaco, Ecuador.

*Brachyspiza capensis* subsp. Chapman, Bull. Amer. Mus. N. H., 55, p. 626, 1926—Ecuador (many localities; crit.); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 627, 1932—El Portete de Tarqui, Ecuador.

*Zonotrichia capensis peruviana* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 471, 1930—Vitarte, Santa Eulalia, La Quinua, near Huánuco, Chinchao,

<sup>1</sup> This reference probably pertains to *Z. c. pulacayensis*.

Cullcui (Marañón River), and Huánuco Viejo, Peru; Hellmayr, l.c., 19, p. 76, 1932—Tacna (Arica, Chacalluta, Putre), Chile.

*Range*.—Temperate zone of Colombia, Ecuador, Peru (excepting extreme southeastern section) and extreme northern Chile (Tacna Province).

57: Venezuela (Páramo de Tamá, 7); Colombia (Cauca, 1; San Agustín, Huila, 1; Bogotá, 5); Ecuador (Chical, Dept. Cañar, 3); Peru (Vitarte, 1; Santa Eulalia, 1; Huánuco Mountains, 5; Huánuco Viejo, 1; Chinchao, 3; Cullcui, Marañón River, 1; Hacienda Limón, 1; Cajamarca, 3; Pacasmayo, 1; Trujillo, 2; Moyobamba, 5; Chachapoyas, 2; Menocucho, 1; Macate, 4; Hacienda Llagueda, 1; Junín, 1; San Ramón, 3; Chile (Chacalluta, Tacna, 2; Putre, Tacna, 2).

**\**Zonotrichia capensis pulacayensis* (Ménégaux).<sup>1</sup> PULACAYO SPARROW.**

*Brachyspiza capensis pulacayensis* Ménégaux, Bull. Mus. Hist. Nat. Paris, 14, No. 7, "1908," p. 341, pub. Jan., 1909—Pulacayo and Pampas de Pazña, Lake Poopo, Oruro, Bolivia (type, from Pulacayo, in Paris Museum examined); idem, Bull. Soc. Philom. Paris, (10), 1, p. 211, 1909 (reprint).

*Zonotrichia capensis pulacayensis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 76, 1932—Tarapacá (Pica, Canchones) and Antofagasta (Rio Loa), Chile (crit.); Zotta, El Hornero, 6, p. 480, 1937—Jujuy (Tilcara), Salta (Chorrollibo), and Catamarca (Lago Blanco).

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Allen, Bull. Mus. Comp. Zool., 3, p. 353, 1876—Moho, Conima, and (?) Coroico, Bolivia; (?) idem, Bull. Amer. Mus. N. H., 2, p. 83, 1889—part, La Paz, Bolivia; (?) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 606—Sorata and Nairapi, Bolivia; Sclater, Proc. Zool. Soc. Lond., 1891, p. 133—Pica, Tarapacá; Lane, Ibis, 1897, p. 20—part, Pica and Canchones, Tarapacá.

*Range*.—Temperate and Puna zones of northern Chile (provinces of Tarapacá and Antofagasta) and the adjacent sections of western Bolivia (Pulacayo and Pampas de Pazña, Lake Poopo region,

<sup>1</sup>*Zonotrichia capensis pulacayensis* (Ménégaux): Agreeing with *Z. c. peruviansis* in broad black lateral head stripes, but somewhat larger and of more rufous coloration throughout, the mantle being but little paler than the nuchal collar, the edges to the greater upper wing coverts and inner secondaries much darker, tawny instead of from buff to ochraceous-tawny, the sides of the body conspicuously more rufescent, varying from tawny-olive to mikado brown. Wing, 77–82, (female) 74–75; tail, 64 (once), 68–74, (female) 68; bill, 11–12.

Chilean birds were found to be identical with one of the original examples from Pazña, while the type of *Z. c. pulacayensis* is very slightly larger. Single individuals of this form are not always distinguishable from *Z. c. peruviansis*, but taken as a whole the series from Tarapacá, Antofagasta, and Oruro stands out by the rufescence of its plumage, and seems to require recognition under a separate subspecific name.

*Additional material examined*.—Bolivia, Oruro: Pulacayo, 1; Pazña, 1.—Chile: Pica, Tarapacá, 2.

Dept. Oruro), northwestern Argentina, and southern Peru (Lake Titicaca).<sup>1</sup>

10: Peru (Puno, 2); Chile (Pica, Prov. Tarapacá, 2; Canchones, Tarapacá, 1; Rio Loa, Prov. Antofagasta, 5).

**\**Zonotrichia capensis chilensis* (Meyen).<sup>2</sup> CHILEAN SPARROW.**

*Fringilla chilensis* Meyen, Nov. Act. Acad. Caes. Leop.-Carol., 16, Suppl., p. 88, 1834—Santiago de Chile (type in Berlin Museum).

*Fringilla mertonii* Audubon, Orn. Biog., 5, p. 312, 1839—"Upper California," errore, probably Valparaiso, Chile (type in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 17, 1899); idem, Bds. America, 1st 8vo ed., 3, p. 151, pl. 190, 1841—"Upper California"; Sclater, Proc. Zool. Soc. Lond., 25, p. 7, 1857 (crit. note on type).

*Zonotrichia matutina* (not *Fringilla matutina* Lichtenstein) Darwin, Zool. Beagle, 3, Birds, p. 91, 1839—part, Valparaiso; Fraser, Proc. Zool. Soc. Lond., 11, p. 113, 1843—Chile; Bonaparte, Consp. Gen. Av., 1, p. 479, 1850—part, Chile; Hartlaub, Naumannia, 3, p. 214, 1853—Valdivia; Cassin, in Gilliss, U. S. Astron. Exp., 2, p. 180, 1855—Chile; Germain, Proc. Bost. Soc. N. H., 7, p. 312, 1860—Santiago (nesting habits); Pelzeln, Reise Novara, Zool., 1, Vögel, p. 93, 1865—Chile.

*Emberiza matutina* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 80, 1837—Chile (in part; spec. from Valparaiso in Paris Museum examined).

*Fringilla matutina* Lesson, Rev. Zool., 5, p. 136, 1842—Valparaiso; Des Murs, in Gay, Hist. Ffs. Pol. Chile, Zool., 1, p. 360, 1847—Chile (in part); Boeck, Naumannia, 1855, p. 505—Valdivia; Kittlitz, Denkw. Reise, 1, pp. 122, 135, 1858—Santo Tomé (Concepción) and Valparaiso; Philippi, Anal. Univ. Chile, 31, p. 265, 1868—Chile; Landbeck, Zool. Garten, 18, p. 258, 1877—Chile; Lataste, Act. Soc. Scient. Chili, 3, p. cxv, 1893—Ninhue, Maule; Waugh and Lataste, l.c., 4, pp. lxxxvii, clxxii, 1894—Peñaflor, Santiago, and San Alfonso, Quillota; Lataste, l.c., 5, pp. xxxiv, lxii, 1895—Caillihue, Curicó, and Llohue, Maule; Porter, Rev. Chil. Hist. Nat., 3, p. 179, 1899—Pabellon, Atacama; Gigoux, l.c., 28, p. 86, 1924—Caldera, Atacama.

*Fringilla australis* (not of Latham) Peale, U. S. Expl. Exp., 8, p. 119, 1848—part, Valparaiso.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Sclater, Proc. Zool. Soc. Lond., 1867, pp. 322, 337—Chile; Reed, Anal. Univ. Chile, 49, p. 544,

<sup>1</sup> The range is probably much more extensive. A series from Ollachea near Macusani (alt. 11,500 ft.), Sierra of Carabaya, which we have seen in the Munich Museum, appears to be referable to *pulacayensis*, but direct comparison with authentic material could not be made. The wing measurements of three adult males are: 76, 76, 76; those of two adult females 72, 74 mm.

<sup>2</sup> *Zonotrichia capensis chilensis* (Meyen) differs from the two preceding races, among other divergencies, by the much narrower, less compact black stripes along the sides of the pileum.

1877—Cauquenes, Colchagua; Salvin, Proc. Zool. Soc. Lond., 1883, p. 422—Coquimbo; Sharpe, Cat. Bds. Brit. Mus., 12, p. 610, 1888—part, spec. c-e, Coquimbo, Chile; Allen, Bull. Amer. Mus. N. H., 3, p. 83, 1889—part, Valparaíso; Lane, Ibis, 1897, p. 20—part, Arauco, Hospital, and Valdivia (habits); Nicoll, Ibis, 1904, p. 50—Valparaíso; Paessler, Zeits. Ool. Orn., 16, p. 28, 1906—Coronel (nest and eggs descr.); Housse, Rev. Chil. Hist. Nat., 28, p. 49, 1924—Isla La Mocha; idem, l.c., 29, p. 147, 1925—San Bernardo; Jaffuel and Pirion, l.c., 31, p. 109, 1927—Marga-Marga, Valparaíso; Bullock, l.c., 33, pp. 125, 190, 1929—Nahuelbuta and Angol, Malleco.

*Zonotrichia canicapilla* (not of Gould) Paessler, Zeits. Ool. Orn., 16, p. 30, 1906—Coronel.

*Brachyspiza capensis capensis* (not *Fringilla capensis* P. L. S. Müller) Barros, Rev. Chil. Hist. Nat., 24, p. 149, 1920—Ñilahue, Curicó, and Melipilla, Santiago; idem, l.c., 25, p. 189, 1921—Aconcagua Valley.

*Brachyspiza capensis chilensis* Paessler, Journ. Orn., 70, p. 477, 1922—Coronel (breeding habits); Wetmore, Bull. U. S. Nat. Mus., 133, p. 419, 1926—Concon, Valparaíso.

*Zonotrichia capensis chilensis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 77, 1932—Chile (monog.); Barros, Rev. Chil. Hist. Nat., 38, p. 136, 1934—Corral de las Ovejas, Peuco, O'Higgins.

*Range.*—Chile, from Atacama to the Guaitecas Islands.

38: Chile (Ramadilla, Copiapó Valley, Atacama, 3; Romero, Coquimbo, 2; La Compañía, Coquimbo, 1; Paiguano, Coquimbo, 3; Los Andes, Aconcagua, 1; Olmué, Valparaíso, 1; San José de Maipo, Santiago, 1; Concepción, 9; Rio Colorado, Malleco, 1; Mafil, Valdivia, 6; Valdivia, 1; Quellon, Chiloé Island, 5; Melinka, Ascencion Island, 4).

**\**Zonotrichia capensis sanborni* Hellmayr.<sup>1</sup> SANBORN'S SPARROW.**

*Zonotrichia capensis sanborni* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 79, June 13, 1932—Baños del Toro (alt. 10,000 ft.), Coquimbo, Chile (type in Field Museum).

<sup>1</sup>*Zonotrichia capensis sanborni* Hellmayr: Nearest to, and agreeing with, *Z. c. chilensis* in narrowness of lateral black crown-stripes, but decidedly larger, with heavier bill, and coloration much paler and more buffy, the back being sandy brown, the edges to the wing coverts and secondaries cinnamon or tawny olive, and the sides of breast and abdomen pale sandy buff. The gray of the crown is even lighter than in the palest specimens (from Atacama) of *Z. c. chilensis*. Wing, 80–87, (female) 79–81; tail, 64–72, (female) 64–67; bill, 11–12½.

The range of this form, which is obviously an altitudinal representative of *Z. c. chilensis*, remains to be worked out. Six birds from Potrerillos, Cordillera of Mendoza, while not comparable as to plumage, show the large bills and the great dimensions of the typical series and, we have little doubt, should be assigned to *Z. c. sanborni*, to which the inhabitants of the higher mountain ranges of Aconcagua and Santiago will probably also prove to pertain.

*Additional material examined.*—Argentina: Potrerillos, Mendoza (alt. 5,000 ft.), Rio Blanco, 6 (March 16–20).

(?) *Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Gosse, in Fitzgerald, The Highest Andes, p. 348, 1899—part, about Inca, Aconcagua Valley, Mendoza.

*Brachyspiza capensis capensis* (not *Fringilla capensis* P. L. S. Müller) Barros, Rev. Chil. Hist. Nat., 34, p. 320, 1930—Cajón de las Vacas, Las Leñas, and Santa María, Alta Cordillera de Mendoza.

*Range*.—Mountains in the Chilean provinces of Coquimbo (Baños del Toro), Aconcagua(?), and Santiago(?), extending to the Cordillera of Mendoza, western Argentina.

13: Chile (Baños del Toro, Prov. Coquimbo, 13).

**\**Zonotrichia capensis choraules* (Wetmore and Peters).<sup>1</sup> RIO NEGRO SPARROW.**

*Brachyspiza capensis choraules* Wetmore and Peters, Proc. Biol. Soc. Wash., 35, p. 44, Mar. 20, 1922—General Roca, Rio Negro, Argentina (type in U. S. National Museum examined); Peters, Bull. Mus. Comp. Zool., 65, p. 333, 1923—Bariloche, Lake Nahuel Huapi (breeding), and Rio Colorado, Rio Negro (wintering); Wetmore, Bull. U. S. Nat. Mus., 133, p. 417, 1926—General Roca, Rio Negro, and Tunuyán, Mendoza; Stone, Rep. Princet. Univ. Exp. Pat., 2, Orn., p. 835, 1927—General Roca, Rio Negro; Pereyra, El Hornero, 4, p. 33, 1927—Conhelo, Pampa.

*Zonotrichia pileata* var. *canicapilla* (not of Gould) Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 39, 1881—from Laguna Marra-Có to the Rio Negro.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Córdoba.

*Brachyspiza capensis* (not *Fringilla capensis* P. L. S. Müller) Sanzin, El Hornero, 1, p. 152, 1918—Mendoza; Castellanos, l.c., 5, p. 323, 1934—Valle de los Reartes, Córdoba (not descr. spec. ex Lujan, Buenos Aires).

*Brachyspiza capensis capensis* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 390, 1910—part, Córdoba.

*Brachyspiza capensis canicapilla* Pereyra, El Hornero, 4, p. 33, 1927—San Rafael, Mendoza.

*Range*.—Central Argentina, from the Rio Negro north to Mendoza and Córdoba.

2: Argentina (Noettinger, Córdoba, 2).

<sup>1</sup> *Zonotrichia capensis choraules* (Wetmore and Peters) differs from *B. c. argentina* by purer, lighter gray pileum, narrower, black lateral stripes, and much paler, less rufous brown back. Wing (male), 74–77; tail, 62–67; bill, 11. Birds from Noettinger, Córdoba (July), agree with August specimens from Rio Colorado, southern Pampa. Breeding individuals (December) have been examined from Arroytos and Pantanitos, Rio Limay, Neuquen. Three skins from Tunuyán, Prov. Mendoza, are variously intermediate to *Z. c. australis*. The range of the present form, which, as correctly pointed out by the describer, is a connecting link between the Patagonian race (*australis*) and the forms with broad black lateral stripes on the pileum, remains to be worked out by further researches.

*Additional material examined*.—Rio Negro: General Roca, 3.—Neuquen: Arroytos, 2; Pantanitos, 1; Bariloche, Lake Nahuel Huapi, 3.—Mendoza: Tunuyán, 3.



**\*Zonotrichia capensis australis** (Latham). PATAGONIAN SPARROW.

*Fringilla australis* Latham, Ind. Orn., 1, p. 466, 1790—based on "Rusty-collared Finch" Latham, Gen. Syn. Bds., Suppl., p. 170, Tierra del Fuego; Peale, U. S. Expl. Exp., 8, p. 119, 1848—part, Orange Bay, Tierra del Fuego.

*Zonotrichia canicapilla* Gould, in Darwin, Zool. Beagle, 3, Birds, p. 91, Nov., 1839—Port Desire, Patagonia, and Tierra del Fuego (type, from Tierra del Fuego, in British Museum); Bonaparte, Consp. Gen. Av., 1, p. 479, 1850—Patagonia and Tierra del Fuego; Durnford, Ibis, 1877, p. 33—Chubut Valley (eggs descr.); Selater, Ibis, 1877, p. 47, pl. 1, fig. 1 (crit., descr., range); Durnford, Ibis, 1878, p. 393—Chubut Valley; Selater and Salvin, Proc. Zool. Soc. Lond., 1878, p. 432—Sandy Point, Magellan Straits; Sharpe, I.c., 1881, p. 7—Puerto Bueno, Straits of Magellan; Selater and Hudson, Arg. Orn., 1, p. 59, 1888—Patagonia; Sharpe, Cat. Bds. Brit. Mus., 12, p. 609, 1889—Tierra del Fuego, Port Desire, Sandy Point, Puerto Bueno, St. Martin's Cove (Hermit Island), and Chubut; Ridgway, Proc. U. S. Nat. Mus., 12, p. 132, 1889—Gregory Bay and Elizabeth Island, Straits of Magellan; C. Burmeister, Anal. Mus. Nac. Buenos Aires, 3, p. 318, 1890—Manantial del Cabo Curioso, between Santa Cruz and Deseado, Patagonia; Oustalet, Miss. Sci. Cap Horn, Zool., 6, p. B95, 1891—Missioneros, Santa Cruz, Rio Gallegos, Orange Bay, and Punta Arenas, Patagonia; Schalow, Zool. Jahrb., Suppl., 4, p. 723, 1898—Punta Arenas; Salvadori, Ann. Mus. Civ. Stor. Nat. Genova, 40, p. 621, 1900—Santa Cruz; Dabbene, Anal. Mus. Nac. Buenos Aires, 8, p. 362, 1902—Tierra del Fuego; Nicoll, Ibis, 1904, p. 42—Punta Arenas; Crawshaw, Bds. Tierra del Fuego, p. 51, 1907—Tierra del Fuego (Useless Bay, San Sebastian, Sierra Carmen Sylva) and Punta Arenas; Blaauw, Not. Leyd. Mus., 35, p. 29, 1912—Casa Panguí, near Lake Todos Santos, Llanquihue, Chile.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Selater and Salvin, Ibis, 1870, p. 499—Sandy Point; Cabanis and Reichenow, Journ. Orn., 24, p. 322, 1876—Straits of Magellan; Burmeister, Anal. Mus. Nac. Buenos Aires, 3, p. 318, 1890—on the road from Rio Chico del Chubut to Villegos, Rio Chubut.

*Brachyspiza capensis* subsp. *canicapilla* Arribáizaga, Anal. Mus. Nac. Buenos Aires, 8, p. 167, 1902—Lago General Paz, western Chubut.

*Brachyspiza canicapilla* Hartert and Venturi, Nov. Zool., 16, p. 177, 1909—part, Santa Cruz, Patagonia (eggs).

*Brachyspiza capensis canicapilla* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 390, 1910 (range); Peters, Bull. Mus. Comp. Zool., 65, p. 333, 1923—Rio Colorado, San Antonio Oeste, Maquinchao, and Huanuluan, Terr. Rio Negro (spec. examined); Wetmore, Bull. U. S. Nat. Mus., 133, p. 419, 1926—Zapala, western Neuquen (eggs descr.); idem, Univ. Calif. Pub. Zool., 29, p. 464, 1926—Valcheta, Rio Negro; Stone, Rep. Princet. Univ. Exp. Patag., 2, Orn., p. 834, 1928—Punta Arenas, near headwaters of Rio Chico, Cape Fairweather, and Mount Tigre, Patagonia.

*Zonotrichia capensis australis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 80, 1932—Casa Richards, Rio Nirehuau, Llanquihue, Chile; Reynolds, El Hornero, 5, p. 343, 1934—Tierra del Fuego.

*Range*.—Tierra del Fuego and Patagonia north to the Rio Negro and western Neuquen (Zapala), and the adjacent parts of southern Chile (Lake Todos Santos and Rio Nirehuau, Llanquihue).<sup>1</sup>

3: Argentina (Passo Ibañez, Santa Cruz, 2); Chile (Casa Richards, Rio Nirehuau, Llanquihue, 1).

**\**Zonotrichia capensis argentina* (Todd).<sup>2</sup> ARGENTINE SPARROW.**

*Brachyspiza capensis argentina* Todd, Proc. Biol. Soc. Wash., 33, p. 71, Dec., 1920—Rio Santiago, near Buenos Aires, Argentina (type in the Carnegie Museum, Pittsburgh); Serié and Smyth, El Hornero, 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 172, 1923—Zelaya, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 659, 1924—Buenos Aires, Entre Ríos, and Santa Fé; Wetmore, Bull. U. S. Nat. Mus., 133, p. 415, 1926—Buenos Aires (Berazategui, Lavalle, Carhue, Guaminí, Bahía Blanca), Pampa (Victorica), Chaco (Resistencia, Las Palmas), and Uruguay (San Vicente); Wilson, El Hornero, 3, p. 361, 1926—General Lopez, Santa Fé; Smyth, l.c., 4, p. 147, 1928—Cacharí, Buenos Aires, and Santa Elena, Entre Ríos (eggs descr.); Friedmann, Bull. Mus. Comp. Zool., 68, p. 234, 1927—part, Santa Elena, Entre Ríos; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 249, 1930—Wildermuth and La Germania, Santa Fé (crit.); Marelli, El Hornero, 5, p. 199, 1933—Sierra de la Ventana and Puerto Belgrano, Buenos Aires.

*Zonotrichia matulina* (not *Fringilla matulina* Lichtenstein) Darwin, Zool. Beagle, 3, Birds, p. 91, 1839—part, banks of the La Plata, Bahía Blanca, and Montevideo; Sternberg, Journ. Orn., 17, p. 271, 1869—Buenos Aires (breeding habits); Doering, Period. Zool. Arg., 1, p. 254, 1874—Bar-rancas, Rio Guayquiraro, Corrientes.

<sup>1</sup> Birds from Huanuluan and Maquinchao agree with others from southeastern Patagonia. The pileum, in *Z. c. australis*, is uniformly pale gray, at best with a few scattered blackish spots in the posterior lateral portion, but there is never a continuous black lateral crown-stripe as in the more northern races of the "Chincol." A single adult male from Llanquihue (Rio Nirehuau) displays certain tendencies toward *Z. c. chilensis* by deeper chestnut nuchal collar, somewhat more rufescent edging to secondaries and greater wing coverts, and the suggestion of a few blackish streaks above the superciliary region.

*Additional material examined*.—Patagonia: Punta Arenas, 3; Santa Cruz, 2.—Rio Negro: Puerto San Antonio (Oeste), 1; Rio Colorado, 1; Maquinchao, 3; Huanuluan, 18.

<sup>2</sup> *Zonotrichia capensis argentina* (Todd): Very near to *Z. c. matulina*, but perhaps distinguishable by lighter, less rufescent upper parts and broader gray coronal stripe.

The material at hand is altogether inadequate to form a final judgment on the validity of this race. Birds from Maldonado, Uruguay, and a single individual from Corrientes seem to be inseparable from three others obtained in the vicinity of Buenos Aires. On examining some thirty specimens in the British Museum I find it very hard to separate the Argentine birds from *matulina*.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 139—Conchitas, Buenos Aires; Durnford, Ibis, 1876, p. 158—near Buenos Aires; idem, Ibis, 1877, p. 172—Baradero, Buenos Aires; Gibson, Ibis, 1880, p. 28—Cape San Antonio, Buenos Aires; Dalgleish, Proc. Roy. Phys. Soc. Edinb., 6, p. 246, 1881—Est. de la Tala, Rio Negro, Prov. Durazno, Uruguay (eggs descr.); White, Proc. Zool. Soc. Lond., 1882, p. 600—Rio Lujan and Punta Lara, Buenos Aires; Barrows, Bull. Nutt. Orn. Cl., 8, p. 131, 1883—Concepción del Uruguay, Entre Ríos (nest and eggs descr.); Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 82, 1884—Collon-gueyú, Buenos Aires; Gibson, Ibis, 1885, p. 278—Paysandú, Uruguay; Sclater and Hudson, Arg. Orn., 1, p. 58, 1888 (habits); Sharpe, Cat. Bds. Brit. Mus., 12, p. 610, 1888—part, spec. f-m, Uruguay (Montevideo) and Buenos Aires (Punta Lara, Conchitas); Holland, Ibis, 1891, p. 16—Est. Espartillar, Buenos Aires; idem, Ibis, 1892, p. 197—Est. Espartillar; Aplin, Ibis, 1894, p. 169—Uruguay (nest descr.); Gibson, Ibis, 1918, p. 386—Cape San Antonio, Buenos Aires.

*Brachyspiza capensis capensis* (not *Fringilla capensis* P. L. S. Müller) Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 390, 1910—part, Buenos Aires and Entre Ríos; Hussey, Auk, 33, p. 398, 1916—La Plata (nest and eggs); Marelli, El Hornero, 1, p. 80, 1918—Curuzú-Cuatí, Corrientes; Dabbene, l.c., 1, p. 245, 1919—Isla Martín García, Buenos Aires.

*Brachyspiza pileata* Grant, Ibis, 1911, p. 98—part, Buenos Aires (Los Yngleses, Ajó), Santa Fé (Rosario), and Corrientes (Bella Vista).

*Zonotrichia capensis argentina* Laubmann, Verh. Orn. Ges. Bay., 20, p. 325, 1934—Est. La Geraldina, Santa Fé.

*Brachyspiza capensis* Tremoleras, El Hornero, 2, p. 23, 1920—Uruguay (Maldonado, Canelones, San José, Colonia, Flores, Florida, Minas, Rocha, Treinta y Tres, Cerro Largo); Renard, l.c., 2, p. 60, 1920—Cañuelas, Buenos Aires; Daguerre, l.c., 2, p. 271, 1922—Rosas, Buenos Aires.

*Range*.—Uruguay and northern Argentina, from the southern border of Buenos Aires Province north to Santa Fé and Corrientes.

10: Argentina (Est. La Maria Luisa, near Guaminí, Buenos Aires, 1); Uruguay (Dept. Maldonado, 3; north of Garzón, Dept. Rocha, 1; north of San Vicente de Castillos, Dept. Rocha, 1; Rio Uruguay, southwest of Dolores, Dept. Soriano, 2; Polanco, Minas, 1; Arazati, Dept. San José, 1).

**\**Zonotrichia capensis hypoleuca* (Todd).<sup>1</sup> WHITE-BELLIED SPARROW.**

*Brachyspiza capensis hypoleuca* Todd, Proc. Biol. Soc. Wash., 28, p. 79, April 13, 1915—"Rio Bermejo," Prov. Salta, Argentina (type in the Carnegie

<sup>1</sup>*Zonotrichia capensis hypoleuca* (Todd): Nearest to *Z. c. matutina*, but upper parts decidedly lighter, less rufous brown, and lower surface whiter, with very little, if any, grayish tinge across the chest. The superciliaries, besides, are more whitish, less tinged with gray. Very close also to *Z. c. argentina*, but perhaps whiter below, and upper parts even paler, less rufescent.

We are quite unable to distinguish between *mellea* and *hypoleuca*. When describing the former, Wetmore had only two specimens of *hypoleuca* in exceed-

Museum); Wetmore, Bull. U. S. Nat. Mus., 133, p. 415, 1926—Tafi, Tucumán, and Jujuy; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 252, 1930—Tarija, Villa Montes, Bolivia.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Salvin, Ibis, 1880, p. 355—Salta; Sharpe, Cat. Bds. Brit. Mus., 12, p. 610, 1888—part, spec. n, o, Salta; Kerr, Ibis, 1892, p. 126—lower Pilcomayo; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 10, 1897—Bolivia (Caiza) and Argentina (San Lorenzo, Jujuy; Tala, Salta).

*Brachyospiza capensis* (not *Fringilla capensis* P. L. S. Müller) (?) Koslowsky, Rev. Mus. La Plata, 6, p. 279, 1895—Chilecito, La Rioja; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 178, 1902—Tucumán; Baer, Ornith., 12, p. 217, 1904—Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Orán, Salta; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 43, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 382, 1907—part, Salta; Dinelli, El Hornero, 3, p. 257, 1924—Tucumán (nest and eggs).

*Brachyospiza capensis capensis* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 390, 1910—part, Tucumán, Salta (Orán), and Jujuy (San Lorenzo).

*Zonotrichia canicapilla* (not of Gould) Lönnberg, Ibis, 1903, p. 451—Moreno, Jujuy.

*Brachyospiza canicapilla* Hartert and Venturi, Nov. Zool., 16, p. 177, 1909—part, Cachí, Salta.<sup>1</sup>

*Brachyospiza capensis mellea* Wetmore, Proc. Biol. Soc. Wash., 35, p. 39, Mar. 20, 1922—eighty kilometers west of Puerto Pinasco, Paraguay (type in U. S. National Museum examined); idem, Bull. U. S. Nat. Mus., 133, p. 416, 1926—west of Puerto Pinasco, Paraguay, and Riacho Pilaga, Formosa; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 251, 1930—Formosa (Tapikiolé, Yuncá Viejo, Lapango, San José) (crit.).

*Brachyospiza pileata* Grant, Ibis, 1911, p. 98—part, Puerto María (Rio Paraguay) and Colonia Mihanovitch, Formosa.

*Brachyospiza capensis* subsp. (?) *choraules* (not of Wetmore and Peters?) Giacomelli, El Hornero, 3, p. 69, 1923—La Rioja.

**Range.**—Eastern Bolivia (north to Santa Cruz),<sup>2</sup> western Paraguay, and northwestern Argentina, south to Formosa, Tucumán, and (?) La Rioja.

11: Argentina (Concepción, Tucumán, 10; Las Pavas, Tucumán, 1).

ingly fresh plumage for comparison, while the originals of *mellea* are somewhat worn. The slight variations appear to me purely seasonal, this conclusion being corroborated by the series in the Munich Museum.

**Additional material examined.**—Paraguay: eighty kilometers west of Puerto Pinasco, 2.—Bolivia: Valle Grande, 2; Villa Montes, Tarija, 2; Caiza, 1.—Argentina: Salta, 3; Tucumán, 3; Tapia, Tucumán, 1; Jujuy, 2; Lapango, Formosa, 1; Tapikiolé, Formosa, 4; Yuncá Viejo, Formosa, 1.

<sup>1</sup> The specimens from San Juan need re-examination to determine their subspecific pertinence.

<sup>2</sup> Birds from Cochabamba (Parotani) and La Paz (Sorata) I am unable to place satisfactorily. They are certainly not *pulacayensis*, but seem very close to, if not identical with, *Z. c. hypoleuca*.

**\**Zonotrichia capensis matutina* (Lichtenstein).<sup>1</sup> BRAZILIAN SPARROW.**

*Fringilla matutina* Lichtenstein, Verz. Doubl. Berliner Mus., p. 25, Sept., 1823—Brazil (lectotype, No. 6,064, from Bahia, in Berlin Museum examined); Wied, Beitr. Naturg. Bras., 3, (1), p. 623, 1830—Bahia and Rio de Janeiro.

*Tanagra ruficollis* (not of Gmelin, 1789) Spix, Av. Spec. Nov. Bras., 2, p. 39, pl. 53, fig. 3, 1825—near Rio de Janeiro, Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 674, 1906).

*Zonotrichia subtorquata* Swainson, Nat. Hist. Class. Bds., 2, p. 288, 1837—new name for Spix, Av. Spec. Nov. Bras., 2, pl. 53, fig. 3 (erroneously quoted as "*T. graminea*").

*Zonotrichia matutina* Cabanis, Mus. Hein., 1, p. 132, 1851—part, Rio Grande [do Sul], Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 229, 1856—Lagõa Santa, Minas Geraes; Euler, Journ. Orn., 15, p. 412, 1867—Cantagallo, Rio (breeding habits).

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Pelzeln, Orn. Bras., 3, p. 229, 1870—Rio de Janeiro, Sapitiba, and Ypanemá (São Paulo), Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 407—Minas Geraes, Brazil; Hamilton, Ibis, 1871, p. 303—round São Paulo; Berlepsch, Journ. Orn., 21, p. 246, 1873—Blumenau, Santa Catharina; Cabanis, l.c., 22, p. 84, 1874—Cantagallo, Rio de Janeiro; Pelzeln, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio de Janeiro; Forbes, Ibis, 1881, p. 337—Canotinho and Garanhuns, Pernambuco; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 124, 1885—Taquara, Rio Grande do Sul, Brazil; Berlepsch, Journ. Orn., 35, p. 9, 1887—Rio Lambaré, near Asunción, Paraguay; Sharpe, Cat. Bds. Brit. Mus., 12, p. 610, 1888—part, spec. p-t, Brazil and Pelotas, Rio Grande do Sul; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 7, 1895—Paraguay (Villa Rica, Baranquera la Nova, Colonia Risso); Ihering, Ann. Est. Rio Grande do Sul, 16, p. 121, 1899—Rio Grande do Sul (Mundo Novo, Rio Grande, Barra do Rio Camaquã, Pedras Brancas); idem, Rev. Mus. Paul., 3, p. 165, 1899—Ypiranga and São Sebastião, São Paulo; idem, l.c., 4, p. 154, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; Kerr, Ibis, 1901, p. 223—Villa Concepción, Paraguay; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 82, 1910—Bahia (Queimadas and Fazenda Imburana, Rio Preto) and Piauhy (Santo Antonio de Gilboez).

<sup>1</sup> *Zonotrichia capensis matutina* (Lichtenstein): Nearest to *B. c. capensis*, but apparently distinguishable by larger size and somewhat deeper rufous nuchal collar. Wing, 65–71, (female) 63–67.

Birds from Rio Grande do Sul do not appreciably differ from those of Bahia and other northern localities, and a single adult female from Urucúm, Matto Grosso, as well as several others from eastern Paraguay are equally typical of the present form.

*Additional material examined.*—Paraguay: Bernalcué, 1; Asunción, 1; Rio Lambaré, 1; Sapucay, 3.—Brazil: Rio Grande do Sul, 9; Ypanemá, São Paulo, 5; Faxina, São Paulo, 1; Agua Suja, Minas Geraes, 1; Urucúm, Matto Grosso, 1; Goyáz, 5; Rio de Janeiro (Manguinhos, Sapitiba), 12; Victoria, Espírito Santo, 4; Bahia, 5; Queimadas, Bahia, 1; Fazenda Imburana, Rio Preto, Bahia, 1; Santo Antonio de Gilboez, Piauhy, 1.

*Zonotrichia capensis* (not *Fringilla capensis* P. L. S. Müller) Allen, Bull. Amer. Mus. N. H., 3, p. 372, 1891—Chapada, Matto Grosso; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 185, 1906—Retiro do Ramos, Serra do Itatiaya, Brazil.

*Brachyspiza capensis capensis* Oberholser, Proc. U. S. Nat. Mus., 25, p. 146, 1902—Sapucay, Paraguay; Hellmayr, Nov. Zool., 15, p. 35, 1908—Goyáz, Brazil.

*Brachyspiza capensis* Ihering, Cat. Faun. Braz., 1, p. 382, 1907—part, São Paulo (Ypiranga, Estação, Rio Grande, Itapura, Guarulhos) and Minas Geraes (Serra do Itatiaya); Chubb, Ibis, 1910, p. 637—Sapucay, Paraguay; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 489, 500, 1912—Vera Guarany, Paraná; Bertoni, Faun. Parag., p. 63, 1914—Alto Paraná, Paraguay; Ménégau, Rev. Franç. d'Orn., 5, p. 86, 1917—Poconé, Matto Grosso; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Retiro do Ramos, Serra do Itatiaya; Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará.

*Brachyspiza (Zonotrichia) capensis* Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 358, 1909—Serra do Itatiaya, Brazil.

*Brachyspiza pileata* Grant, Ibis, 1911, p. 98—part, Villa Franca, Paraguay.

*Brachyspiza capensis* subsp. Holt, Bull. Amer. Mus. N. H., 57, p. 318, 1928—Serra do Itatiaya, Brazil.

*Brachyspiza capensis matulina* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 300, 1929—Maranhão (Grajahú; Codó, Cocos) and Piauí (Ibiapaba, Arára); Naumburg, Bull. Amer. Mus. N. H., 60, p. 356, 1930—Matto Grosso (Urucum) and Paraguay (Asunción) (crit.); Pinto, Rev. Mus. Paul., 17, (2), p. 106, 1932—Tres Lagôas, Matto Grosso.

*Range*.—Eastern and southern Brazil, from interior Maranhão, Piauí, and Ceará south to Rio Grande do Sul, west through Goyáz to southern Matto Grosso, and the adjoining section of Paraguay (east of the Rio Paraguay) and Argentina (Misiones).

49: Brazil (Grajahú, Maranhão, 2; Cocos, Maranhão, 2; Arára, Piauí, 1; Ibiapaba, Piauí, 1; Rio São Miguel, Goyáz, 3; Veadeiros, Goyáz, 2; Macaco Secco, near Andaraí, Bahia, 12; Rio do Peixe, Bahia, 1; São Marcello, Bahia, 2; Rio das Velhas, Minas Geraes, 4; Baurú, São Paulo, 1; Joinville, Santa Catharina, 5; Chapada, Matto Grosso, 2; Therezopolis, Rio de Janeiro, 5); Argentina, Misiones (Caraguatay, 4; Rio Paraná, 2).

***Zonotrichia capensis macconnelli* Sharpe.<sup>1</sup> MCCONNELL'S SPARROW.**

*Zonotrichia macconnelli* Sharpe, Trans. Linn. Soc. Lond., (2), 8, Zool., p. 53, pl. 4, fig. 1, Sept., 1900—summit of Mount Roraima (type in British Museum).

<sup>1</sup>*Zonotrichia capensis macconnelli* Sharpe: Similar to *Z. c. capensis*, but larger, with more rounded wing; coloration of upper parts darker; gray central crown-

*Brachyspiza macconnelli* Chubb, Bds. Brit. Guiana, 2, p. 461, 1921—Mount Roraima.

*Zonotrichia capensis macconnelli* Chapman, Bull. Amer. Mus. N. H., 63, p. 121, 1931—summit of Roraima (crit.).

*Range*.—Summit of Mount Roraima, on the confines of British Guiana and Venezuela.

***Zonotrichia capensis roraimae* (Chapman).<sup>1</sup> RORAIMA SPARROW.**

*Brachyspiza capensis roraimae* Chapman, Amer. Mus. Novit., 341, p. 5, Feb. 2, 1929—Philipp Camp, 6,000 ft., Roraima, Venezuela (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 63, p. 120, 1931—slopes and savanna of Mount Roraima.

*Zonotrichia matutina* (not *Fringilla matutina* Lichtenstein) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 679, 1849—near Roraima.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Salvin, Ibis, 1885, p. 216—Merumé Mountains and Roraima; Sharpe, Cat. Bds. Brit. Mus., 12, p. 610, 1888—part, spec. g'-k', Merumé Mountains and Roraima.

*Range*.—Savannas and slopes of Roraima and Merumé Mountains, British Guiana.

**\**Zonotrichia capensis capensis* (P. L. S. Müller). CAYENNE SPARROW.**

*Fringilla capensis* P. L. S. Müller, Natursyst., Suppl., p. 165, 1776—based on "Bruant, du Cap de Bonne Espérance" Daubenton, Pl. Enl., pl. 386, fig. 2, "Cape of Good Hope," errore, = Ile de Cayenne, French Guiana (cf. Buffon, Hist. Nat. Ois., 4, p. 369, 1778).

*Emberiza pileata* Boddaert, Tabl. Pl. Enl., p. 23, Dec., 1783—based on Daubenton, Pl. Enl., pl. 386, fig. 2, and "Le Bonjour-Commandeur" Buffon, Hist. Nat. Ois., 4, p. 369; Ile de Cayenne.

*Zonotrichia matutina* (not *Fringilla matutina* Lichtenstein) Cabanis, Mus. Hein., 1, p. 132, 1851—part, Caracas, Venezuela.

*Zonotrichia pileata* Phelps, Auk, 14, p. 364, 1897—Cumaná, Venezuela; Snethlage, Journ. Orn., 55, p. 297, 1907—Rio Acará and Pará.

*Brachyspiza capensis* Berlepsch and Hartert, Nov. Zool., 9, p. 28, 1902—Quiribana de Caicara, Orinoco, Venezuela; Berlepsch, l.c., 15, p. 315,

stripe decidedly narrower; rump and sides of the body gray without any brownish tinge. Wing (male), 71; tail, 65.

A single specimen from the summit of Roraima examined.

<sup>1</sup>*Zonotrichia capensis roraimae* (Chapman): Agreeing with *Z. c. macconnelli* in rounded wing as well as in gray rump and sides, but smaller and the gray center of the pileum more extensive, being about as broad as the black lateral stripes. Wing, 64, (female) 61; tail, 57, (female) 55.

Two adults from the Merumé Mountains, though not in comparable plumage, seem to be of the same form as a single bird from the lower slopes of Roraima. This is obviously a connecting link between McConnell's Sparrow and typical *Z. c. capensis*, combining size and crown-coloration of the latter with the gray rump and sides of the former.

1908—Cayenne; Snethlage, *Journ. Orn.*, **61**, p. 521, 1913 (ecology); idem, *Bol. Mus. Goeldi*, **8**, p. 433, 1914—Rio Acará (Pará) and Monte Alegre, Brazil; Cherrie, *Sci. Bull., Mus. Brookl. Inst.*, **2**, p. 195, 1916—Quiribana de Caicara, Orinoco.

*Brachyspiza capensis capensis* Hellmayr, *Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss.*, **26**, No. 2, p. 88, 1912—Rio Acará, Pará; Hellmayr and Seilern, *Arch. Naturg.*, **78**, A, Heft 5, p. 68, 1912—Cumbre de Valencia, Carabobo, Venezuela; Beebe, *Zoologica (N.Y.)*, **2**, p. 106, 1916—Pará; Chapman, *Amer. Mus. Novit.*, **191**, p. 11, 1925—Carápas and Cocollar, northeastern Venezuela; Naumburg, *Bull. Amer. Mus. N. H.*, **60**, p. 356, 1930—northern Matto Grosso (Tapirapoan, Jurueña, Utiarity).

*Range*.—Venezuela (from the north coast south to the Orinoco Valley); French Guiana;<sup>1</sup> northern Brazil (Pará; Rio Acará; Monte Alegre; Tapirapoan, Jurueña, and Utiarity, northern Matto Grosso).<sup>2</sup>

17: Venezuela (Cocollar, Sucre, 6; Mount Turumiquire, 10; Rio Mucujón, 1).

**\**Zonotrichia capensis insularis* (Ridgway). CURACAO SPARROW.**

*Brachyspiza capensis insularis* Ridgway, *Auk*, **15**, p. 321, Oct., 1898—Curaçao (type in U. S. National Museum); idem, *Bull. U. S. Nat. Mus.*, **50**, Part 1, p. 349, 1901—Curaçao and Aruba (monog.); Hartert, *Nov. Zool.*, **9**, p. 298, 1902—Curaçao and Aruba (crit.); Cory, *Field Mus. Nat. Hist., Orn. Ser.*, **1**, pp. 201, 207, 254, 1909—Aruba and Curaçao.

*Zonotrichia pileata* (not *Emberiza pileata* Boddaert) Berlepsch, *Journ. Orn.*, **40**, p. 82, 1892—Curaçao (crit.); Hartert, *Ibis*, 1893, pp. 295, 314—Aruba and Curaçao (nest and eggs descr.); Robinson, *Flying Trip to Tropics*, p. 165, 1895—Curaçao.

*Range*.—Islands of Curaçao and Aruba, Caribbean Sea.

29: Aruba, 12; Curaçao, 17.

<sup>1</sup> *Zonotrichia pileata* Penard (*Vog. Guyana*, **2**, p. 406, 1910) seems to be exclusively based on Schomburgk's reference, which pertains, however, to *Z. c. roraimae*. No instance of the occurrence of any representative of this group in Dutch Guiana appears to be on record.

<sup>2</sup> In the absence of satisfactory material from French Guiana, which—according to Buffon's rectification—must be regarded as type locality of Daubenton's "Bruant, du Cape de Bonne Espérance," I am by no means certain that the range as here given is correct. A single unsexed Cayenne skin in the American Museum of Natural History, the only one we have seen from that country, seems to be inseparable from a series of Venezuelan skins and, as pointed out by Mrs. Naumburg, specimens from northern Matto Grosso are apparently of the same form, differing from *Z. c. matutina* in smaller size, slenderer bill, and paler nuchal collar.

*Additional material examined*.—Venezuela: Cumaná, 6; Galipán, Cerro del Avila, Caracas region, 20; La Cumbre de Valencia, Carabobo, 4; Quiribana de Caicara, Orinoco, 2.—French Guiana: Cayenne, 1.—Brazil: Monte Alegre, 1; Tapirapoan, Matto Grosso, 1; Rio Jurueña, Matto Grosso, 1.



**\*Zonotrichia capensis antillarum** (Riley).<sup>1</sup> CONSTANZA SPARROW.

*Brachyspiza antillarum* Riley, Smiths. Misc. Coll., 66, No. 15, p. 2, Dec. 1, 1916—Constanza, Santo Domingo (type in U. S. National Museum).

*Brachyspiza capensis antillarum* Chapman, Bull. Amer. Mus. N. H., 37, p. 333, 1917—Loma Tina, Loma Rucilla, and Las Cañitas (crit.); Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 326, 1929—Loma del Medio; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 444, 1931 (monog.).

*Range*.—Highlands (Cordillera Central) of the Dominican Republic, island of Hispaniola, Greater Antilles.

9: Dominican Republic (Mount Rusilla, 1; Las Cañitas, 1; Constanza, La Vega, 7).

Genus **PASSERELLA** Swainson<sup>2</sup>

*Passerella* Swainson, Nat. Hist. & Class. Bds., 2, p. 288, July 1, 1837—type, by monotypy, *Fringilla iliaca* "Wilson"—Merrem.

**\*Passerella iliaca iliaca** (Merrem). EASTERN FOX SPARROW.

*Fringilla iliaca* Merrem, Avium Rar. Icon. et Descr., 2, p. 37, pl. 10, 1786—North America (type not extant).

*Fringilla ferruginea* Gmelin, Syst. Nat., 1, (2), p. 921, 1789—based on "The Little Sparrow" Edwards, Glean. Nat. Hist., 3, p. 299, pl. 354 (Pennsylvania) and "Ferruginous Finch" Pennant, Arct. Zool., 2, p. 375 ("Newfoundland and as low as Pennsylvania").

*Fringilla rufa* Wilson, Amer. Orn., 3, p. 53, pl. 22, fig. 4, 1811—Connecticut River, Vermont, etc. (type in Peale's Museum, lost).

*Emberiza pratensis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 4, p. 402, 1816—new name for *Fringilla ferruginea* Gmelin.

*Passerella obscura* Verrill, Proc. Bost. Soc. N. H., 9, p. 143, Dec., 1862—Anticosti Island (descr. of young; cotypes in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 387, 1930).

*Passerella iliaca iliaca* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 386, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 21, p. 114, 1920 (monog.).

*Passerella iliaca* Schiøler, Dansk. Orn. Tidskr., 6, p. 79, 1911—Sukkertoppen, Greenland (male, Oct. 13, 1910).

<sup>1</sup> *Zonotrichia capensis antillarum* (Riley): Nearest to *Z. c. costaricensis*, but black gular band wholly or nearly confluent in the middle, and tail longer (as long as in *Z. c. peruviansis*). Wing, 62–69, (female) 61–64; tail, 59–69, (female) 58–68.

The close similarity of this interesting insular race to *costaricensis* points to its Central American origin.

<sup>2</sup> The list of the subspecies is based upon Swarth's exhaustive revision in Univ. Calif. Pub. Zool., 21, pp. 75–224, 1920. With respect to general variation, osteology, and relationship, Linsdale's study, l.c., 30, pp. 251–392, 1928, should be consulted. The material in Field Museum has not been seen by the author.

*Range*.—Northern North America, from the tree limit in north-eastern Alaska, northern Mackenzie, central Keewatin, Ontario (Moose Factory), and Quebec south to Manitoba, Magdalen Islands, and Newfoundland; winters from the lower Ohio and Potomac valleys to Texas and Florida; casual in Greenland (one record from Sukkertoppen), on the coast of Alaska, in Arizona, and California.

69: Alaska (Nome, 2); Labrador (Anatalok Bay, 1; Bowdoin Harbor, 2); Maine (Lincoln, 1); Massachusetts (Dighton, 1; unspecified, 1); New Jersey (Englewood, 2; East Orange, 1); New York (Shelter Island, 4; Sennett, 1); Connecticut (East Hartford, 13); Ohio (Columbus, 2; Garrettsville, 1); Indiana (Miller, 3); Illinois (Chicago, 5; Deerfield, 2; Worth, 3; Joliet, 1; Ravinia, 1; Highland Park, 1; Evanston, 1; Mound City, 1; Fort Sheridan, 1; Glen Ellyn, 1; Colehour, 1); Wisconsin (Beaver Dam, 7); Iowa (Knoxville, 1); Kansas (Fort Riley, 1); Texas (Waring, 2); North Carolina (Raleigh, 4); South Carolina (Frogmore, 1).

**\**Passerella iliaca altivagans* Riley.<sup>1</sup> ALBERTA FOX SPARROW.**

*Passerella iliaca altivagans* Riley, Proc. Biol. Soc. Wash., 24, p. 234, Nov. 28, 1911—Moose Branch of the Smoky River, Alberta (type in U. S. National Museum); idem, Canad. Alp. Journ., 1912, Spec. No., p. 69—Moose Pass, British Columbia, and Smoky River, Alberta; Oberholser, Auk, 35, p. 186, 1918 (crit., range); Swarth, Univ. Calif. Pub. Zool., 21, p. 119, 1920 (monog.); idem, l.c., 24, p. 357, 1924—Skeena River region, British Columbia (crit.); Grinnell, Auk, 43, p. 324, 1926—Alta Lake region, British Columbia; idem, Univ. Calif. Pub. Zool., 32, p. 177, 1928—northern Lower California.

*Range*.—Breeds in the interior of British Columbia and extreme western Alberta; winters mainly in California west of the Sierra Nevada and in the San Diego district, and in northwestern Lower California.

5: California (San Dimas Canyon, 4; Palmer's Canyon, 1).

**\**Passerella iliaca unalaschcensis* (Gmelin). SHUMAGIN FOX SPARROW.**

*Emberiza unalaschcensis* Gmelin, Syst. Nat., 1, (2), p. 875, 1789—based on "Unalascha [sic] Bunting" Pennant, Arct. Zool., 2, p. 364; "Unalaschca," Alaska.

*Emberiza aonalaschkensis* Latham, Ind. Orn., 2, p. 415, 1790—new name for *Emberiza unalaschcensis* Gmelin.

<sup>1</sup> *Passerella iliaca altivagans* Riley: Very similar to *P. i. iliaca*, but, according to Swarth, distinguishable by somewhat smaller size and duller coloration; from *P. i. unalaschcensis* and allied races separable by rather brighter coloration with more strongly contrasting reds and grays.

*Passerella iliaca unalaschensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 389, 1901—Shumagin Islands and Alaska (monog., full bibliog.); Preble and McAtee, N. Amer. Faun., 46, p. 96, 1923—St. Paul Island, Pribilof Islands (ex Hanna).

*Passerella iliaca unalaschensis* Swarth, Univ. Calif. Pub. Zool., 21, p. 127, 1920 (monog.); Hanna, Condor, 22, p. 173, 1920—North East Point, St. Paul Island, Pribilof Islands (May 20); Huey, Condor, 29, p. 154, 1927—La Grulla, Lower California; Grinnell, Univ. Calif. Pub. Zool., 32, p. 179, 1928—La Grulla, Sierra San Pedro Mártir, Lower California.

*Range*.—Breeds on the base of the Alaska Peninsula, on the Shumagin Islands, Unalaska, and (?) Pribilof Islands (one record from North East Point, St. Paul Island, May 20); winters chiefly in California south to the Sierra San Pedro Mártir, Lower California.

13: California (San Bruno, 2; San Dimas Canyon, 2; Clipper Gap, 1; Pacific Grove, 2; Nicasio, 5; San Geronimo, 1).

***Passerella iliaca insularis* Ridgway.<sup>1</sup> KODIAK FOX SPARROW.**

*Passerella iliaca insularis* Ridgway, Auk, 17, p. 30, Jan., 1900—Kodiak Island, Alaska (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 391, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 21, p. 132, 1920 (monog.); idem, Pacif. Coast Avif., 22, p. 53, 1934—Sitkalidak Island (May 15).

*Range*.—Breeds on Kodiak Island, Alaska; winters chiefly in the coast district of California from Marin County south to Los Angeles County.

**\**Passerella iliaca sinuosa* Grinnell.<sup>2</sup> VALDEZ FOX SPARROW.**

*Passerella iliaca sinuosa* Grinnell, Univ. Calif. Pub. Zool., 5, p. 405, Mar. 5, 1910—Drier Bay, Knight Island, Prince William Sound, Alaska (type in Museum of Vertebrate Zoology, Berkeley); Swarth, l.c., 21, p. 135, 1920 (monog.); Preble and McAtee, N. Amer. Fauna, 46, p. 96, 1923—St. Paul Island, Pribilof Islands; Grinnell, Univ. Calif. Pub. Zool., 32, p. 179, 1928—Lower California.

<sup>1</sup> Van Rossem (Trans. San Diego Soc. N. H., 7, pp. 360, 361, 1934) has recently proposed to supplant Ridgway's subspecific name by *hyperborea* Bonaparte (Consp. Gen. Av., 1, (2), p. 477, 1850), but we cannot possibly agree to his argumentation. Bonaparte did not describe a new species, but merely transferred *Enberiza* [sic] *hyperborea* Pallas (Zoogr. Rosso-Asiat., 2, p. 35), an unidentifiable bird observed by Dr. Merk "in terris Tschuktschicis," to the genus *Passerella*. The specimens from Sitka and Kodiak in the Leyden Museum, which van Rossem, on the late Dr. van Oort's authority, believes to have served as basis for Bonaparte's description, are not even mentioned in the "Conspectus," where merely Pallas's habitat is repeated. Van Rossem clearly errs in assuming that his name was "exclusively and explicitly" based on a specimen in the Leyden Museum. The name "*Passerella hyperborea* Bp. Mus. Lugd.," given in parenthesis, is simply a synonym quoted from a Museum label, as was the general custom among authors of that period.

<sup>2</sup> *Passerella iliaca sinuosa* Grinnell: Nearest to *P. i. unalaschensis*, but with slenderer bill and a decidedly ashy tinge on the back as well as on the sides of the neck.

*Passerella iliaca insularis* (not of Ridgway) Evermann, Auk, **30**, p. 18, 1913—St. Paul Island, Pribilof Islands (Sept. 7).

*Passerella iliaca annectens* (not of Ridgway, 1900) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 392, 1901—part, Prince William Sound.

*Range*.—Breeds in the Prince William Sound region (islands and mainland), on Middleton Island, and on the Kenai Peninsula, Alaska; winters chiefly in California south to northern Lower California.

6: California (Los Gatos, 1; San Bruno, 1; Monterey, 2; Clipper Gap, 1; San Dimas, 1).

**\**Passerella iliaca annectens* Ridgway.<sup>1</sup> YAKUTAT FOX SPARROW.**

*Passerella iliaca annectens* Ridgway, Auk, **17**, p. 30, Jan., 1900—Yakutat, Alaska (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 392, 1901 (in part); Swarth, Univ. Calif. Pub. Zool., **21**, p. 140, 1920 (monog.).

*Range*.—Breeds in the coast district of Alaska in the vicinity of Yakutat Bay; winters chiefly in the coast district of central California from Marin County south through Monterey County, casually to Los Angeles and San Bernardino counties.

7: California (Nicasio, 3; Monterey, 1; San Bruno, 1; Los Gatos, 1; Palo Alto, 1).

***Passerella iliaca townsendi* (Audubon). TOWNSEND'S FOX SPARROW.**

*Plectrophanes townsendi* Audubon, Birds Amer. (folio), **4**, pl. 424, fig. 7, 1838—"shores of the Columbia River, Oregon" [=Fort Vancouver, Washington] (cf. Audubon, Orn. Biog., **5**, p. 236, 1839) (type in U. S. National Museum; cf. Swarth, Univ. Calif. Pub. Zool., **21**, p. 144, 1920).

*Passerella iliaca townsendi* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 392, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., **21**, p. 144, 1920 (monog.); Willett, Condor, **23**, p. 36, 1921 (range); Bailey, Auk, **44**, p. 361, 1927—shores of Glacier Bay and outer Beardslee Island, Alaska.

*Range*.—Breeds in the southern coast district of Alaska (mainland and islands) from Glacier Bay and Lynn Canal south over the Alexander Archipelago to Forrester Island, also on the Queen Charlotte Islands; winters on the coast of Oregon and of California from Humboldt County south to Santa Cruz County; accidental in Arizona.

<sup>1</sup>*Fringilla meruloides* Vigors (Zool. Voy. Blossom, p. 19, 1839), based on a winter bird taken at Monterey, which is no longer extant (cf. Grinnell, Univ. Calif. Pub. Zool., **38**, p. 310, 1932), has been applied by Grinnell (Condor, **4**, p. 45, 1902; l.c., **10**, p. 238, 1908) to this form, and while this author still holds to its acceptance, we are rather inclined to follow Swarth in rejecting it as being—to say the least—somewhat uncertain, since no less than five different races of Fox Sparrow have been found during winter at Monterey.

**\**Passerella iliaca fuliginosa* Ridgway. SOOTY FOX SPARROW.**

*Passerella iliaca fuliginosa* Ridgway, Auk, 16, p. 36, Jan., 1899—Neah Bay, Washington (type in U. S. National Museum); idem, Auk, 17, p. 30, 1900— from south side of Dixon Entrance to northwestern Washington; idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 394, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 21, p. 149, 1920 (monog.); idem, l.c., 24, p. 261, 1922—Stikine region, southeastern Alaska (crit.).

*Range.*—Breeds from the mainland of southeastern Alaska south along the coast of British Columbia, including Vancouver Island, to northwestern Washington; winters south from Vancouver Island to central California, rarely to the San Gabriel Mountains, southern California.

7: Washington (Jefferson County, 3); Oregon (Tillamook, 4).

**\**Passerella iliaca schistacea* Baird. SLATE-COLORED FOX SPARROW.**

*Passerella schistacea* Baird, in Baird, Cassin, and Lawrence, Rep. Expl. and Surv. R. R. Pacif., 9, p. 490, 1858—“Head of the Platte”=south fork of Platte River, about 25 miles east of the northeastern corner of Colorado, in Nebraska<sup>1</sup> (type in U. S. National Museum).

*Passerella iliaca schistacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 395, 1901—part, excl. of California and Oregon (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 21, p. 152, 1920 (monog.); Grinnell, l.c., 32, p. 178, 1928—Lower California.

*Range.*—Breeds in mountains of the Great Basin District from extreme southeastern British Columbia and southwestern Alberta south to Nevada and probably eastern Wyoming; winters south to southern California, northern Lower California, southern Arizona, and New Mexico.

5: Washington (Pullman, 1); California (Nicasio, 1; San Dimas, 3).

***Passerella iliaca fulva* Swarth.<sup>2</sup> WARNER MOUNTAINS FOX SPARROW.**

*Passerella iliaca fulva* Swarth, Proc. Biol. Soc. Wash., 31, p. 162, Dec. 30, 1918—Sugar Hill, Warner Mountains, Modoc County, California (type in Museum of Vertebrate Zoology, Berkeley); idem, Univ. Calif. Pub.

<sup>1</sup> The specimens from Fort Tejon, California, mentioned by Baird, belong to another form. About the exact type locality—taken from the fourth edition of the A. O. U. Check List—the critical remarks by Swarth (1920, pp. 153–154) should be consulted.

<sup>2</sup> *Passerella iliaca fulva* Swarth: Bill intermediate in size between *P. i. schistacea* and *P. i. mariposae*, about the same size as in *P. i. monoensis*, but more slender and attenuated than the short, but rather heavy bill of that race; coloration about as in *P. i. schistacea*, hence more brownish than in *mariposae* and *monoensis*; wing and tail somewhat shorter than in *mariposae*, about the same as in *schistacea* (Swarth, l.c.).

Zool., 21, p. 158, 1920 (monog.); Grinnell, l.c., 32, p. 178, 1928—Sierra Juárez, Lower California; idem, Dixon, and Linsdale, l.c., 35, p. 440, 1930—Butte Lake, Lassen Peak region, California (crit.).

*Passerella iliaca schistacea* (not of Baird) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 395, 1901—part, northeastern California and Oregon.

*Range*.—Breeds in extreme northeastern California (mountains of Modoc and Lassen counties) and north in Oregon east of the Cascades to Crook County; winters in Los Angeles County, California, and in northern Lower California (one record from Laguna Hanson, Sierra Juárez).

**\**Passerella iliaca megarhyncha* Baird. THICK-BILLED FOX SPARROW.**

*Passerella megarhynchus* Baird, in Baird, Cassin, and Lawrence, Rep. Expl. and Surv. R. R. Pacif., 9, p. 925, 1858—Fort Tejon [Kern County, California] (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 311, 1932).

*Passerella iliaca megarhyncha* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 397, 1901—California (in part); Grinnell, Univ. Calif. Pub. Zool., 32, p. 178, 1928—Lower California.

*Passerella iliaca megarhynchus* Swarth, Univ. Calif. Pub. Zool., 21, p. 161, 1920 (monog.).

*Range*.—Breeding range unknown; winters in California, west of the high Sierras, from Tehama County south to the Mexican boundary and in northwestern Lower California.

3: California (San Dimas, 1; San Antonio, 1; Nicasio, 1).

**\**Passerella iliaca brevicauda* Mailliard.<sup>1</sup> TRINITY FOX SPARROW.**

*Passerella iliaca brevicauda* Mailliard, Condor, 20, p. 139, July 22, 1918—half a mile south of South Yolla Bolly Mountain, Trinity County, California (type in Museum of Vertebrate Zoology, Berkeley); idem, Proc. Calif. Acad. Sci., (4), 9, p. 291, 1919—Mount Sanhedrin; Swarth, Univ. Calif. Pub. Zool., 21, p. 165, 1920 (monog.); Clark, Condor, 34, p. 113, 1932—Snow Mountain, Black Butte, etc., California (breeding).

*Range*.—Breeds in the inner northern Coast ranges of California from North Yolla Bolly Mountain, Trinity County, south to Mt. Sanhedrin, Mendocino County, and Snow Mountain, Colusa County; winters in the coast district from Marin and Napa counties south to Los Angeles County.

1: California (Nicasio, 1).

<sup>1</sup> *Passerella iliaca brevicauda* Mailliard: Agreeing with *P. i. stephensi* in enormous development of bill, but general coloration decidedly brownish instead of grayish; tail rather shorter; claws weaker; bill somewhat differently shaped (after Mailliard and Swarth, l.c.).

**Passerella iliaca canescens** Swarth.<sup>1</sup> INYO FOX SPARROW.

*Passerella iliaca canescens* Swarth, Proc. Biol. Soc. Wash., **31**, p. 163, Dec. 30, 1918—Wyman Creek, east slope of White Mountains, Inyo County, California (type in Museum of Vertebrate Zoology, Berkeley); idem, Univ. Calif. Pub. Zool., **21**, p. 169, 1920 (monog.); Grinnell, l.c., **32**, p. 178, 1928—Lower California.

*Passerella iliaca schistacea* (not of Baird) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 395, 1901—part, White Mountains, California.

*Range*.—Breeds in the White Mountains of Inyo and Mono counties, California; winters in southern California and northern Lower California.

**Passerella iliaca monoensis** Grinnell and Storer.<sup>2</sup> MONO FOX SPARROW.

*Passerella iliaca monoensis* Grinnell and Storer, Condor, **19**, p. 165, Sept. 25, 1917—Mono Lake Post Office, Mono County, California (type in Museum of Vertebrate Zoology, Berkeley); Swarth, Univ. Calif. Pub. Zool., **21**, p. 170, 1920 (monog.); Grinnell, l.c., **32**, p. 178, 1928—Lower California.

*Passerella iliaca megarhyncha* (not of Baird) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 397, 1901—part, Sierra Nevada, California (in part).

*Range*.—Breeds on the east slope of the Sierra Nevada in the vicinity of Mono Lake and possibly in the Panamint Mountains, California; winters in the western foothills of the Sierra Nevada, in southern California (west of the deserts), and in northern Lower California.

**\*Passerella iliaca mariposae** Swarth.<sup>3</sup> YOSEMITE FOX SPARROW.

*Passerella iliaca mariposae* Swarth, Proc. Biol. Soc. Wash., **31**, p. 161, Dec. 30, 1918—near Chinquapin, Yosemite Park, California (type in Museum of Vertebrate Zoology, Berkeley); idem, Univ. Calif. Pub. Zool., **21**, p. 173, 1921 (monog.); Mailliard, Condor, **23**, p. 73, 1921—Lake Tahoe (nesting habits); Grinnell, Univ. Calif. Pub. Zool., **32**, p. 178, 1928—Lower California.

*Passerella iliaca megarhyncha* (not of Baird) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 397, 1901—part, Sierra Nevada, California (in part).

<sup>1</sup> *Passerella iliaca canescens* Swarth: Most similar to *P. i. schistacea*, but decidedly more grayish in coloration (Swarth, l.c.).

<sup>2</sup> *Passerella iliaca monoensis* Grinnell and Storer: Similar in bill-character to *P. i. fulva*, but coloration distinctly grayish. Not unlike *P. i. canescens* and *P. i. mariposae* in color, but structure of bill intermediate between the two (Swarth, l.c.).

<sup>3</sup> *Passerella iliaca mariposae* Swarth: Similar in grayish coloration to the two foregoing races, but in bill-structure approaching *P. i. megarhyncha* and *P. i. stephensi*. Compared to the first-named, the bill is relatively longer, with more attenuated tip, being just the same shape as in *stephensi*, but smaller. *P. i. mariposae* is closely similar to *stephensi*, save for the smaller bill, and differs from *P. i. monoensis* by its larger bill.

*Range*.—Breeds in the northern and central Sierra Nevada of California from the vicinity of Mount Shasta south to Kearsarge Pass, Inyo County; winters in southern California and northern Lower California.

3: California (Blue Canyon, 2; Fyffe, 1).

**\**Passerella iliaca stephensi* Anthony. STEPHENS' FOX SPARROW.**

*Passerella iliaca stephensi* Anthony, Auk, 12, p. 348, Oct., 1895—San Jacinto Mountains [Tahquitz Valley], California (type in coll. of A. W. Anthony, now in Carnegie Museum, Pittsburgh; cf. Todd, Ann. Carnegie Mus., 18, p. 363, 1928, and Grinnell, Univ. Calif. Pub. Zool., 38, p. 312, 1932); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 398, 1901 (monog., bibliog.); Grinnell, Auk, 22, p. 388, 1905—Mount Pinos and Sawmill Mountain, California (crit.); Swarth, Univ. Calif. Pub. Zool., 21, p. 176, 1920 (monog.); Pierce, Condor, 23, p. 80, 1921—San Bernardino Mountains (nest and eggs descr.).

*Range*.—Breeds in the southern Sierra Nevada of California from Horse Corral Meadow, Fresno County, south through Tulare County, also on Mount Pinos, Ventura County, and in the San Gabriel, San Bernardino, and San Jacinto Mountains, southern California; winters in southern California (Los Angeles and Santa Barbara counties).

6: California (Big Bear Valley, 4; Mount Pinos, 1; Lytle Creek Canyon, 1).

**Genus MELOSPIZA Baird<sup>1</sup>**

*Melospiza* Baird, in Baird, Cassin, and Lawrence, Rep. Expl. and Surv. R. R. Pacif., 9, p. 476, 1858—type, by orig. desig., *Fringilla melodia* Wilson.

*Helospiza* Baird, in Baird, Cassin, and Lawrence, Rep. Expl. and Surv. R. R. Pacif., 9, p. 476, 1858—type, by orig. desig., *Fringilla palustris* Wilson = *Fringilla georgiana* Latham.

**\**Melospiza lincolni* lincolni (Audubon). LINCOLN'S SPARROW.**

*Fringilla lincolni* Audubon, Bds. Amer. (folio), 2, pl. 193, 1834; idem, Orn. Biogr., 2, p. 539, 1834—Labrador [=near the mouth of the Natashquan River, Quebec] (type obviously lost; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 16, 1899).

*Melospiza lincolni* Sharpe, Cat. Bds. Brit. Mus., 12, p. 698, 1888—part, Fort Simpson, Lake of Woods (Manitoba), Colville, etc.

*Melospiza lincolni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 379, 1901 (monog., in part).

<sup>1</sup> According to Linsdale (Univ. Calif. Pub. Zool., 30, pp. 366–368, 1928), this genus is not separable from *Passerella*, and if we admit it here it is solely out of deference to the A. O. U. Check List. The material in Field Museum has not been examined by the author.



*Melospiza lincolnii lincolnii* Grinnell, Univ. Calif. Pub. Zool., 32, p. 177, 1928—Lower California.

*Passerella lincolnii lincolnii* Miller and McCabe, Condor, 37, pp. 146, 158, 1935 (crit., breeding and winter ranges).

*Range*.—Transcontinental Boreal area from the Kowak and Yukon valleys in Alaska, the interior of British Columbia (from the Cariboo district north to the Skeena River), and northern Mackenzie east through northern Alberta, Manitoba, northern Minnesota, and Ontario to New Brunswick, Nova Scotia, and northern New York; winters throughout the western United States, chiefly in California, Arizona, and Lower California<sup>1</sup> (after Miller and McCabe).

73: British Columbia (Sumas, 1); Saskatchewan (Moose Jaw, Lake Johnston, 4); Ontario (Quetico Park, 1); Wisconsin (Milton, 1; Lac Vieux Desert, 1); Illinois (Chicago, 3; Grand Chain, 2; Grand Tower, 1; Villa Ridge, 3; Henry, 1; Joliet, 1; Waukegan, 1; Warsaw, 1; Calumet Lake, 1); Arizona (Phoenix, 3; Fort Verde, 2); Texas (Corpus Christi, 20; Fort Worth, 2; Ingram, 2; Laredo, 1; Novasota, 1; unspecified, 1); Mississippi (Holly Springs, 8; Vicksburg, 1); Arkansas (Winslow, 1); California (Nicasio, 1; Palo Alto, 3; San Gregorio, 1; Sansevine Flats, 1; Carmel, 1); Lower California (Comodu, 2).

### *Melospiza lincolnii gracilis* (Kittlitz).<sup>2</sup> FORBUSH'S SPARROW.

*Emberiza (Zonotrichia) gracilis* Kittlitz, Denkw. Reise Russ. Amer., Mikron. und Kamts., 1, p. 199, 1858—Sitka, Alaska (June 25 and July 15) (type probably in Leningrad Museum).

*Melospiza lincolni striata* Brewster, Auk, 6, p. 89, April, 1889—Comox, British Columbia (cotypes in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 387, 1930); Grinnell, Auk, 21, p. 274, 1904 (crit.).

<sup>1</sup> Winters probably also farther south in Mexico, as well as in Guatemala, whence *M. l. lincolnii* has variously been recorded (cf. Phillips, Auk, 28, p. 89, 1911—San Fernando, Alta Mira, Matamoros, Galindo, and Santa Leonor, Tamaulipas; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 485, 1927—Presidio and Motzorongo, Vera Cruz; van Rossem, Trans. San Diego Soc. N. H., 6, p. 303, 1931—Sonora; Griscom, Bull. Mus. Comp. Zool., 75, p. 419, 1934—Coyucá and Chilpancingo, Guerrero; van Rossem, l.c., 77, p. 489, 1934—Sonora and Chihuahua). These specimens may, however—at least in part—belong to the then undescribed *M. l. alticola*.

<sup>2</sup> The name "*Emberiza spinoletta*, Kittl." is said by Finsch (Abhandl. Naturw. Ver. Bremen, 3, p. 46, 1872) to occur on one of Brandt's *unpublished* (cf. Finsch, l.c., p. 44, in text of *Melospiza guttata*) plates intended for the continuation of his "Descr. et Icon. Anim. Ross. Nov.," of which only a single part, consisting of 64 pages of text and six plates dealing with ducks, geese, and swans, was issued in 1836. While it has no standing under the Rules, it probably refers to the same specimen subsequently named *E. gracilis* by Kittlitz.

*Melospiza lincolnii gracilis* Oberholser, Proc. Biol. Soc. Wash., 19, p. 42, 1906 (crit.); Willett, Condor, 16, p. 87, 1914—Sitka (crit.); Grinnell, Univ. Calif. Pub. Zool., 5, p. 231, 1909—Chichagof and Baranof Islands, Alaska (crit.); idem, l.c., 32, p. 177, 1928—Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 303, 1931—Tecoripa and George Island, Sonora; idem, Bull. Mus. Comp. Zool., 77, p. 489, 1934—Oposura and Nacozari, Sonora.

*Passerella lincolnii gracilis* Miller and McCabe, Condor, 37, pp. 151, 158, 1935 (crit., breeding and winter ranges).

*Range*.—Breeds in the southern Alaskan Archipelago south to the Queen Charlotte Islands, and east to the mainland coast and the large river valleys and inlets; winters chiefly in California, northern Lower California, and Sonora.<sup>1</sup>

**\**Melospiza lincolnii alticola* (Miller and McCabe).<sup>2</sup> MONTANE SPARROW.**

*Passerella lincolnii alticola* Miller and McCabe, Condor, 37, pp. 156, 159, May, 1935—Bluff Lake, San Bernardino Mountains, San Bernardino County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Range*.—Breeds in the higher mountain ranges of the coast, Great Basin, and Rocky Mountains from Montana, Idaho, and Oregon south to New Mexico (Pecos Baldy), Arizona (White Mountains), and California (San Jacinto Mountains); winters in the southwestern United States, in Mexico, and in Guatemala (after Miller and McCabe).

18: Colorado (Fort Lyon, 4; Denver, 1; Sunset, 1; Routt County, 1; Fremont County, 1; unspecified, 1); California (Big Bear Valley, San Bernardino Mountains, 1); Mexico (near Miñaca, Chihuahua, 2; Tampico, Tamaulipas, 2; Nuevo Laredo, Tamaulipas, 1; Aldama, Tamaulipas, 1; Iguala, Guerrero, 1); Guatemala (Lake Atitlan, 1).

**\**Melospiza georgiana* (Latham). SWAMP SPARROW.**

*Fringilla georgiana* Latham, Ind. Orn., 1, p. 460, 1790—Georgia.

*Fringilla palustris* Wilson, Amer. Orn., 3, p. 49, pl. 22, fig. 1, 1811—Pennsylvania (type in Peale's Museum, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 387, 1930).

*Passerculus caboti* Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 2, pl. 46, fig. 9, 1874—Nahant, Massachusetts (type in U. S. National Museum;= young).

<sup>1</sup> Guatemalan specimens, recorded by Griscom (Bull. Amer. Mus. N. H., 64, p. 364, 1932) as *M. l. striata* need re-examination. They may be referable to the recently described *M. l. alticola*.

<sup>2</sup> *Melospiza lincolnii alticola* (Miller and McCabe): Similar to *M. l. lincolnii*, but with slightly longer wings and tail; upper parts more brownish, less ruddy, with the dusky streaks on average narrower (Miller and McCabe, l.c.).

*Melospiza georgiana* Sharpe, Cat. Bds. Brit. Mus., 12, p. 697, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 382, 1901 (monog., full bibliog.).

*Range*.—Breeds in North America, from western Alberta, central Mackenzie, northern Manitoba, southern Quebec, and Newfoundland south to Nebraska, northern Missouri, northern Illinois, West Virginia (mountains), southern Pennsylvania, and New Jersey; winters from Nebraska, the Ohio Valley, and New Jersey south to the Gulf coast from southern Florida to Texas, Tamaulipas, and Jalisco, Mexico.

160: Maine (Lincoln, 1); Massachusetts (Cambridge, 3; Chatham, 1; Brookline, 1); Connecticut (East Hartford, 25); New Jersey (Englewood, 1); New York (Shelter Island, 2; Suffolk County, 1; King's County, 1); Ohio (Columbus, 3); Indiana (Salamonia, 1); Illinois (Grand Chain, 8; Chicago, 9; Joliet, 3; Grand Tower, 1; Fox Lake, 1; Deerfield, 1; Lake Forest, 1; Highland Park, 1; Brainerd, 1; Waukegan, 1; Wolf Lake, 1; Mud Lake, 3; Auburn Park, 1); Wisconsin (Fox Lake, 4; Beaver Dam, 10); Texas (Brownsville, 2; Highland, 1; Jefferson County, 1); Louisiana (Buras, 1; New Orleans, 17; Chef Menteur, 17); Mississippi (Holly Springs, 3); Georgia (McIntosh County, 2); North Carolina (Raleigh, 4); Florida (Wilson, 9; Jupiter, 1; Palm Beach, 1; Banana River, 3; Gainesville, 2; Nassau County, 3; Rosewood, 2; Santa Rosa Island, 3; Puntarasa, 1; East Pass, 1).

**\**Melospiza melodia melodia* (Wilson). EASTERN SONG SPARROW.**

*Fringilla fasciata* (not of P. L. S. Müller, 1776) Gmelin, Syst. Nat., 1, (2), p. 922, 1789—based on "Fasciated Finch" Pennant, Arct. Zool., 2, p. 376; New York.<sup>1</sup>

*Fringilla melodia* Wilson, Amer. Orn., 2, p. 125, pl. 16, fig. 4, 1810—"from Canada to the southern boundaries of Georgia"<sup>2</sup> (type in Peale's Museum, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 386, 1930).

(?) *Melospiza melodia acadica* Thayer and Bangs, Proc. New Engl. Zool. Cl., 5, p. 67, May 29, 1914—Wolfville, Nova Scotia (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 386, 1930 (crit.).<sup>3</sup>

<sup>1</sup> *Fringilla hiemalis* Gmelin (Syst. Nat., 1, [2], p. 922, 1789—based on "Winter Finch" Pennant, Arct. Zool., 2, p. 376; New York) does not seem to be identifiable with certainty.

<sup>2</sup> Philadelphia, Pennsylvania, suggested as type locality by Todd (Auk, 47, p. 257, 1930).

<sup>3</sup> Nova Scotia birds have been separated on account of their very dark and rich coloration of the upper parts with chestnut predominating, and reduced yellowish or grayish edgings; very broad and dark chestnut lateral crown stripes;

*Melospiza cinerea melodia* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 354, 1901 (monog., full bibliog., in part).

**Range.**—Breeds in northern North America from southern Mackenzie (Great Slave Lake), northern Manitoba and Ontario, southern Quebec, and Cape Breton Island south to southern Virginia and northern Georgia; winters from Massachusetts and New Jersey south to southern Florida and the Gulf coast, and sporadically north to Nova Scotia and Labrador.

150: Maine (New Vineyard, 2; Bangor, 1); Rhode Island (Fruit Hill, 1; Bristol, 1); Massachusetts (Cambridge, 3; Yarmouth, 2; Great Island, 2; Newton, 1; Taunton, 1); Connecticut (East Hartford, 14; Stamford, 1); New York (Shelter Island, 8; Peterboro, 2; King's County, 2; Auburn, 2; Boonville, 1); Ohio (Columbus, 9); Indiana (Bluffton, 1; Salamonie, 1; Liverpool, 5); Michigan (Ann Arbor, 1); Illinois (Waukegan, 5; Worth, 3; Fox Lake, 3; Chicago, 8; Lake Forest, 3; Deerfield, 2; Hegewisch, 4; Wolf Lake, 3; Mud Lake, 1; Highland Park, 1; Joliet, 1; Lewistown, 1; Des Plaines, 1; Glencoe, 1; Mound City, 1; Laverne, 1); Wisconsin (Beaver Dam, 37; Fox Lake, 2; Milton, 1; Woodruff, 1); North Carolina (Raleigh, 5); Florida (Gainesville, 3; Town Point, Santa Rosa County, 1).

***Melospiza melodia atlantica* Todd.<sup>1</sup> ATLANTIC SONG SPARROW.**

*Melospiza melodia atlantica* Todd, Auk, 41, p. 147, Jan. 10, 1924—Smith's Island [Northampton County], Virginia (type in U. S. National Museum); Wayne, Auk, 41, p. 484, 1924—coast of South Carolina, near Charleston (winter); Wetmore, Auk, 44, p. 256, 1927—near Ocean City, Maryland (breeding; crit.); idem, Auk, 53, p. 223, 1936—lower part of Chesapeake Bay (breeding).

**Range.**—Atlantic coastal islands and edge of the mainland of the eastern United States from New York (Long Island) to South Carolina (Charleston).

***Melospiza melodia euphonia* Wetmore.<sup>2</sup> ALLEGHENY SONG SPARROW.**

inconspicuous grayish central crown stripe; and slightly smaller, slenderer bills. Mr. Todd (Auk, 47, p. 257, 1930), as well as the A. O. U. Check List, refuses to recognize *M. m. acadica*, but as the late Outram Bangs maintained its distinctness, the matter obviously requires further investigation.

<sup>1</sup> *Melospiza melodia atlantica* Todd: Similar to the nominate race, but with larger, heavier bill; coloration above much grayer, with the blackish streaking more distinct, and the reddish and brown feather-edgings reduced to a minimum; more closely resembling *M. m. juddi*, but even more grayish above. Wing (male), 67; tail, 65; bill, 12.

<sup>2</sup> *Melospiza melodia euphonia* Wetmore: Similar to *M. m. melodia*, but distinctly darker above, being grayer, with the dusky markings more pronounced; sides of head grayer, less buffy or brown; tail on average darker.

*Melospiza melodia euphonia* Wetmore, Smiths. Misc. Coll., 97, No. 17, p. 1, Sept. 26, 1936—Cranberry Glades, Pocahontas County, West Virginia (type in U. S. National Museum).

*Melospiza melodia beata* (not of Bangs) Todd, Auk, 47, p. 257, 1930—southern Alleghenies.

*Range*.—Breeds in the mountain ranges of eastern North America from New York (Canandaigua Lake) to North Carolina.

**\**Melospiza melodia juddi* Bishop.<sup>1</sup> DAKOTA SONG SPARROW.**

*Melospiza fasciata juddi* Bishop, Auk, 13, p. 132, April, 1896—Rock Lake, Towner County, North Dakota (type in coll. of L. B. Bishop).

*Melospiza cinerea juddi* Bent, Auk, 25, p. 31, 1908—southwestern Saskatchewan, Canada.

*Melospiza melodia juddi* Ferry, Auk, 27, p. 202, 1910—Saskatchewan (Prince Albert, Quill Lake); Rowan, Auk, 39, p. 230, 1922—Indian Bay, Manitoba; Gabrielson and Jewett, Auk, 41, p. 301, 1924—Fort Clark, North Dakota.

*Melospiza melodia beata* Bangs, Proc. N. Eng. Zool. Cl., 4, p. 87, June 5, 1912—Enterprise, Florida (type in Museum of Comparative Zoology, Cambridge, Mass.); Wetmore, Smiths. Misc. Coll., 97, No. 17, p. 2, 1936 (crit.).

*Range*.—Breeds in the Great Plains of North America, from southwestern Saskatchewan and eastern Montana to the Turtle Mountains, North Dakota; in winter south to Texas, New Mexico, and Florida (Enterprise).

3: Texas (Ingram, 2; Giddings, 1).

**\**Melospiza melodia fallax* (Baird). MOUNTAIN SONG SPARROW.**

*Zonotrichia fallax* Baird, Proc. Acad. Nat. Sci. Phila., 7, No. 3, May–June, p. 119, pub. July 3, 1854—Pueblo Creek, “New Mexico” [=Arizona] (type in U. S. National Museum).<sup>2</sup>

*Melospiza melodia montana* Henshaw, Auk, 1, p. 224, July, 1884—Fort Bridger, “Utah” [=Wyoming] (type in U. S. National Museum); Taylor, Univ. Calif. Pub. Zool., 7, p. 399, 1912—northern Nevada (nest descr.).

*Melospiza cinerea montana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 358, 1901 (monog., full bibliog., in part).

*Melospiza melodia fallax* Grinnell, Univ. Calif. Pub. Zool., 5, p. 269 (in text), 1909 (crit.); idem, l.c., 12, p. 173, 1914—Colorado Valley in winter (crit.); van Rossem, Bull. Mus. Comp. Zool., 77, p. 490, 1934—Chihuahua and 25 miles south of San Pedro, Chihuahua, Mexico.

<sup>1</sup> *Melospiza melodia juddi* Bishop: Similar to *M. m. melodia*, but upper parts, especially the superciliary streak and sides of neck, paler, with the blackish streaking broader and the reddish brown edging narrower, and under parts clearer white, with the dusky pectoral markings more sharply defined.

<sup>2</sup> The type proved to be a migratory individual of the form subsequently named *M. m. montana*, as has been demonstrated by Grinnell.

*Range*.—Breeds in the Rocky Mountains from western Montana to northeastern Oregon and south to Utah, northern New Mexico, and southern Nevada; winters from Montana to western Texas, Chihuahua, Sonora, Arizona, and southeastern California.

17: Oregon (Baker County, 1); Colorado (Fort Lyon, 4; Windsor, 2; Hot Sulphur Springs, 1; Platte Canyon, 1; Loveland, 1); Arizona (Phoenix, 4; Prescott, 1); New Mexico (Mesilla, 1; Deming, 1).

***Melospiza melodia fisherella* Oberholser.<sup>1</sup> MODOC SONG SPARROW.**

*Melospiza melodia fisherella* Oberholser, Proc. Biol. Soc. Wash., 24, p. 251, Dec. 23, 1911—Honey Lake, near Milford, California (type in U. S. National Museum).

*Melospiza cinerea montana* (not of Henshaw) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 358, 1901 (monog., in part).

*Range*.—Breeds in the Rocky Mountains from southeastern Oregon, northeastern Nevada, and southwestern Idaho south through eastern California to Owens Valley, and west to Shasta County; winters in California.

**\**Melospiza melodia merrilli* Brewster. MERRILL'S SONG SPARROW.**

*Melospiza fasciata merrilli* Brewster, Auk, 13, p. 46, Jan., 1896—Fort Sherman, Idaho (type in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 387, 1930).

*Melospiza fasciata ingersolli* McGregor, Bull. Cooper Orn. Cl., 1, p. 35, March 15, 1899—Battle Creek [Tehama County], California (type in coll. of R. C. McGregor, now in Dwight Collection, in the American Museum of Natural History, New York; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 312, 1932).

*Melospiza cinerea merrilli* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 361, 1901 (monog., full bibliog., in part).

*Range*.—Breeds in northwestern Idaho and eastern Washington, northwestern United States; winters through California, in eastern Oregon, Arizona, and New Mexico.

7: Washington (Pullman, 6; Prescott, 1).

**\**Melospiza melodia sanaka* McGregor. ALEUTIAN SONG SPARROW.**

*Fringilla cinerea* (not of Meuschen, 1787) Gmelin, Syst. Nat., 1, (2), p. 922, 1789—based on "Cinereous Finch" Pennant, Arct. Zool., 2, p. 378; *Unalaschka* (cf. Richmond, Auk, 25, p. 380, 1908).

<sup>1</sup> *Melospiza melodia fisherella* Oberholser: Not unlike *M. m. fallax*, but upper parts darker; streaks on under parts more blackish brown; wing shorter; bill heavier;

*Melospiza sanaka* McGregor, Condor, 3, No. 1, p. 8, Jan. 15, 1901—Sanak Island, Alaska (type in coll. of R. C. McGregor, now in Dwight Collection, in the American Museum of Natural History, New York).

*Melospiza cinerea semidiensis* Brooks, Proc. New Engl. Zool. Cl., 7, p. 27, Nov. 4, 1919—North Semidi Island, Semidi Islands, Alaska (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Melospiza cinerea cinerea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 377, 1901 (monog., full bibliog.).

*Melospiza melodia sanaka* Bent, Smiths. Misc. Coll., 56, No. 32, p. 21, 1912—Aleutian Islands; Brooks, Bull. Mus. Comp. Zool., 59, p. 411, 1915—Semidi Islands; Hanna, Auk, 33, p. 401, 1916—St. George Island, Pribilof Islands (Oct. 28 and Dec. 21); Preble and McAtee, N. Amer. F., 26, p. 96, 1923—Pribilof Islands (ex Hanna); Laing, Victoria Mem. Mus., Bull., 40, p. 38, 1925—Unalaska, Atka, Adak, Kiska, and Attu Islands, Aleutians; Swarth, Pacif. Coast Avif., 22, p. 53, 1934—Akutan and Unalaska, Aleutian Islands (breeding).

*Range*.—Semidi and Shumagin Islands, adjacent parts of Alaska Peninsula, Aleutian Islands (Unalaska, Atka, Akutan, Adak, Kiska, and Attu), and Pribilof Islands (St. George Island).<sup>1</sup>

3: Alaska (Unalaska, 3).

### ***Melospiza melodia insignis* Baird. BISCHOFF'S SONG SPARROW.**

*Melospiza insignis* Baird, Trans. Chicago Acad. Sci., 1, Part 2, p. 319, pl. 29, fig. 2, 1869—Kodiak Island, Alaska (type in U. S. National Museum); Richmond, Auk, 12, p. 144, 1895 (crit., syn., eggs descr.).

*Melospiza cinerea insignis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 376, 1901 (monog., full bibliog.).

*Melospiza melodia insignis* Swarth, Pacif. Coast Avif., 22, p. 53, 1934—Sitkalidak Island.

*Range*.—Kodiak Island, Alaska, and adjacent coast of the Alaska Peninsula.

### ***Melospiza melodia kenaiensis* Ridgway. KENAI SONG SPARROW.**

*Melospiza melodia kenaiensis* Ridgway, Auk, 17, p. 29, Jan., 1900—Port Graham, Cook's Inlet, Alaska (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 395, 1901 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 5, p. 402, pl. 33, 1910—Prince William Sound region, Alaska (crit., nest, and eggs descr.).

*Range*.—Coast of the Kenai Peninsula, Alaska, from the east side of Cook Inlet to Prince William Sound.

similar also to *M. m. hermanni*, but larger; upper surface paler, less rufescent; streaks underneath more brownish. Wing (male, type), 66; tail, 66; bill, 12.

<sup>1</sup> Specimens from the Semidi Islands are stated to approach *M. m. insignis* in the coloration of the under parts. They were described as *M. c. semidiensis*, but that form was subsequently abandoned by the describer himself. Bangs (Bull. Mus. Comp. Zool., 70, p. 387, 1930) lists it, however, as a valid form without comment.

**\**Melospiza melodia caurina* Ridgway. YAKUTAT SONG SPARROW.**

*Melospiza fasciata caurina* Ridgway, Auk, 16, p. 36, Jan., 1899—Yakutat, Alaska (type in U. S. National Museum).

*Melospiza cinerea caurina* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 375, 1901—coast of St. Elias district, Alaska (monog.).

*Melospiza melodia caurina* Grinnell, Condor, 12, p. 174, 1910—Humboldt Bay, California (winter); Swarth, Univ. Calif. Pub. Zool., 7, p. 90, 1911—Alexander Archipelago, Alaska (crit.); idem, Condor, 14, p. 73, 1912—Juneau, Alaska (wintering); idem, Univ. Calif. Pub. Zool., 24, p. 259, 1922—Sergief Island, Alaska.

*Range*.—Coast of southeastern Alaska from Yakutat Bay to Lituya Bay; winters from Alaska (Juneau) to San Francisco Bay, California.

2: Alaska (Wrangell, 2).

**\**Melospiza melodia rufina* (Bonaparte). SOOTY SONG SPARROW.**

*Passerella rufina* Bonaparte,<sup>1</sup> Consp. Gen. Av., 1, (2), p. 477, 1850—Sitka, Alaska (location of type not stated).

*Melospiza cinerea rufina* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 373, 1901—part, southern Alaska (islands and coast).

*Melospiza melodia rufina* Grinnell, Univ. Calif. Pub. Zool., 5, p. 229, 1909—part, Chichagof and Baranof Islands, Alaska; Swarth, l.c., 7, p. 89, 1911—part, Kuiu, Prince of Wales, Warren, and Duke Islands, Alaska; idem, Condor, 25, pp. 216, 221, 1923 (crit., range).

*Melospiza melodia kwaia* Cumming, The Murrelet, 14, No. 3, p. 78, Sept., 1933—Langara Island, Queen Charlotte Islands, British Columbia (type in coll. of R. A. Cumming).

*Range*.—Southeastern Alaska, on the western islands of the Alexander Archipelago (from Chichagof to Forrester, Duke, and other small islands) and the Queen Charlotte Islands, British Columbia.<sup>2</sup>

5: British Columbia (Masset, Queen Charlotte Islands, 1; Okanagan, 3; Sumas, 1).

**\**Melospiza melodia morphna* Oberholser. RUSTY SONG SPARROW.**

*Fringilla guttata* (not of Vieillot, 1817) Nuttall, Man. Orn. U. S. and Canada, 2nd ed., 1, p. 581, 1840—"woody districts of the Columbia . . . south to

<sup>1</sup> *Emberiza rufina* Brandt, "Orn. Ross., t. 2, 5," quoted by Bonaparte, is obviously a manuscript name. According to Finsch (Abhandl. Naturw. Ver. Bremen, 3, p. 44, in text of *Melospiza guttata*), the name does not occur in Brandt's unpublished plates. Cf. also footnote 2, page 594.

<sup>2</sup> Birds from the Queen Charlotte Islands have lately been separated as *M. m. kwaia* on account of less ruddy coloration with less defined grayish median crown stripe, but as pointed out by Swarth (l.c., p. 217) they simply show the characters of *rufina* in their extreme development and exhibit less individual varia-



Upper California" (type, from the Columbia River [=Fort Vancouver, Washington], in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 19, 1899).

*Melospiza melodia morphna* Oberholser, Auk, 16, p. 183, April, 1899—new name for *Fringilla guttata* Nuttall, preoccupied.

*Melospiza cinerea phaea* Fisher, Condor, 4, p. 36, March, 1902—Gardiner, mouth of Umpqua River, Oregon (type in coll. of J. Grinnell, now in Museum of Vertebrate Zoology, Berkeley).

*Melospiza melodia inexpectata* Riley, Proc. Biol. Soc. Wash., 24, p. 234, Nov. 28, 1911—three miles east of Moose Lake, British Columbia (type in U. S. National Museum); idem, Canad. Alpine Journ., 1912, Spec. No., p. 68—three miles east of Moose Lake and Yellowhead Pass, British Columbia, and Henry House, Alberta; Oberholser, Auk, 25, p. 187, 1918 (crit.).

*Melospiza cinerea morphna* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 372, 1901 (monog., full bibliog.).

*Melospiza cinerea rufina* (not *Passerella rufina* Bonaparte) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 373, 1901—part, coast of British Columbia and Washington.

*Melospiza melodia rufina* Grinnell, Univ. Calif. Pub. Zool., 5, p. 229, 1909—part, Admiralty Island, Glacier Bay, and Thomas Bay, Alaska; Swarth, l.c., 7, p. 89, 1911—part, Boca de Quadra, Chikamin River, Etolin Island, Thomas Bay, Port Snettisham, and Taku River, Alaska; idem, l.c., 10, p. 60, 1912—Vancouver Island (crit.); idem, l.c., 24, p. 255, 1922—Sergief Island, Alaska, and Stikine Valley (Telegraph Creek, Dochda-on Creek, Flood Glacier), British Columbia.

*Melospiza melodia morphna* Swarth, Condor, 25, pp. 216, 221, 1923 (crit., syn., range); idem, Univ. Calif. Pub. Zool., 24, p. 356, 1924—Hazelton and Kispiox Valley, Skeena River region, British Columbia.

*Range*.—Eastern islands of the Alexander Archipelago (Admiralty, Wrangell, Revillagigedo, etc.) and the adjacent mainland coast of Alaska, from Glacier Bay southward throughout British Columbia (except the extreme northern and northeastern sections), Vancouver Island, and western Washington to Oregon (to Jackson County and Goldbeach, Curry County); in winter casually as far as Riverside County, California.<sup>1</sup>

31: Washington (Tacoma, 1; Clallam, 2; San Juan Island, 1); Oregon (Logan, 9; Eagle Point, 4; Salem, 2; Tillamook, 2; McCoy, 1; Newport, 1; Portland, 1; Netarts, 1; Yaquina Bay, 1; Jackson County, 1; Linn County, 1); California (Nicasio, 2; Enterprise, 1).

tion than the inhabitants of the Alexander Archipelago, where the range of *M. m. morphna* is approached. Osgood (N. Amer. F., 21, p. 48, 1901) did not see any reason for their subspecific segregation either.

<sup>1</sup> As has been demonstrated by Swarth (Condor, 25, pp. 218-221, 1923), neither *M. c. phaea* nor *M. m. inexpectata* can be satisfactorily separated from *M. m. morphna*.

**\**Melospiza melodia cleonensis* McGregor. MENDOCINO SONG SPARROW.**

*Melospiza melodia cleonensis* McGregor, Bull. Cooper Orn. Cl., 1, No. 5, p. 87, Sept. 15, 1899—Westport, Mendocino County, California (type in coll. of R. C. McGregor, now in Dwight Collection, in the American Museum of Natural History, New York; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 312, 1932).

*Melospiza cinerea cleonensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 371, 1901 (monog.).

**Range.**—Coast belt of northwestern California from Del Norte County to Mendocino County; casually to Olema, Marin County, and to Curry County, Oregon.

1: California (Eureka, 1).

**\**Melospiza melodia samuelis* (Baird). SAMUEL'S SONG SPARROW.**

*Ammodramus samuelis* Baird, Proc. Bost. Soc. N. H., 6, p. 379, August, 1858—Petaluma, Sonoma County, California (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 313, 1932).

*Melospiza gouldii* Baird, in Baird, Cassin, and Lawrence, Rep. Expl. Surv. R. R. Pacif., 9, p. 479, 1858—"California" (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 312, 1932).

*Melospiza melodia gouldii* Grinnell, Univ. Calif. Pub. Zool., 5, p. 267, 1909—Marin and Sonoma counties, California (crit.).

*Melospiza melodia santaecrucis* Grinnell, Condor, 3, p. 92, July, 1901—San Francisquito Creek, near Palo Alto, California (type in coll. of J. Grinnell, now in Museum of Vertebrate Zoology, Berkeley; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 313, 1932).

*Melospiza cinerea samuelis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 369, 1901 (monog.).

**Range.**—Pacific slope of middle California from southern Mendocino County to the Sur River, Monterey County, and east to Solano and Yolo counties, Berkeley, and the Santa Clara Valley.<sup>1</sup>

32: California (Palo Alto, 8; Monterey County, 2; Alameda County, 2; San José, 2; Los Gatos, 2; Hayward, 5; Santa Cruz, 1; San Francisco, 2; Sausalito, 1; Nicasio, 5; Berryessa, 1; San Gregorio, 1).

<sup>1</sup> Grinnell subdivides this form into three races, limiting *M. m. samuelis* to the salt marshes on the north side of San Francisco Bay and the southern side of San Pablo Bay, while the birds from Marin and Sonoma counties are separated as *M. m. gouldii* (suggested type locality, five miles west of Inverness, toward Point Reyes, Marin County) and those from the Santa Cruz Mountain region as *M. m. santaecrucis*. The first-named (*gouldii*) is stated to differ by browner coloration, whereas *M. m. santaecrucis* approaches *M. m. cooperi*, but may be distinguished by smaller size, weaker bill, and greater extent and intensity of the brown markings. The A. O. U. Check List does not consider either as worthy of formal recognition.

**\*Melospiza melodia maxillaris** Grinnell.<sup>1</sup> SUISUN SONG SPARROW.

*Melospiza melodia maxillaris* Grinnell, Univ. Calif. Pub. Zool., 5, p. 265, April 9, 1909—tule marsh west of Suisun, Solano County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Range*.—Lowlands surrounding Suisun Bay, west-central California from Benicia and Port Costa east to the vicinity of the confluence of the Sacramento and San Joaquin rivers.

4: California (Suisun, 4).

**\*Melospiza melodia mailliardi** Grinnell.<sup>2</sup> MODESTO SONG SPARROW.

*Melospiza melodia mailliardi* Grinnell, Univ. Calif. Pub. Zool., 7, p. 197, Feb. 18, 1911—Rancho Dos Rios, near Modesto, Stanislaus County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Range*.—Sacramento and lower San Joaquin valleys of California (except the vicinity of Suisun Bay) south from Tehama County to Stanislaus County.

1: California (Marysville, 1).

**Melospiza melodia pusillula** Ridgway. ALAMEDA SONG SPARROW.

*Melospiza fasciata pusillula* Ridgway, Auk, 16, p. 35, Jan., 1899—[west of Hayward], Alameda County, California (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 313, 1932).

*Melospiza cinerea pusillula* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 370, 1901 (monog.).

*Range*.—Salt marshes around the south arm of San Francisco Bay, California, from Islais Marsh, San Francisco County, to Richmond, Contra Costa County.

**\*Melospiza melodia heermanni** Baird. HEERMANN'S SONG SPARROW.

*Melospiza heermanni* Baird, in Baird, Cassin, and Lawrence, Rep. Expl. and Surv. R. R. Pacif., 9, p. 478, 1858—Tejon Valley, California (in winter) (type in U. S. National Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 314, 1932); Grinnell, Univ. Calif. Pub. Zool., 5, p. 266 (in text), 1909—upper San Joaquin Valley, California (crit.).

*Melospiza cinerea heermanni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 364, 1901 (monog., bibliog.).

<sup>1</sup> *Melospiza melodia maxillaris* Grinnell: Differs from *M. m. samuelis* in having the brown markings more extended and of a deeper tone (bay rather than hazel), much greater size, and bulkier bill.

<sup>2</sup> *Melospiza melodia mailliardi* Grinnell: Similar in size and broad, dark markings to *M. m. maxillaris*, but bill, though of the same length, much narrower, especially when viewed from above.

*Range*.—Upper San Joaquin Valley, California, from Merced County to Kern County.

2: California (Los Baños, 2).

**\**Melospiza melodia cooperi* Ridgway. SAN DIEGO SONG SPARROW.**

*Melospiza fasciata cooperi* Ridgway, Auk, 16, p. 35, Jan., 1899—San Diego, California (type in U. S. National Museum).

*Melospiza cinerea cooperi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 367, 1901 (monog., bibliog.).

*Melospiza melodia cooperi* Grinnell, Univ. Calif. Pub. Zool., 5, p. 98, 1908—San Bernardino Mts., California; idem and Swarth, l.c., 10, p. 279, 1913—San Jacinto, southern California; Grinnell, l.c., 32, p. 175, 1928—Lower California.

*Range*.—Coast district of southern California and northwestern Lower California, from Monterey County(?), Santa Barbara, and southern San Luis Obispo counties, south to lat. 30°.

17: California (Alhambra, 9; Riverside, 1; Claremont, 2; San Diego, 1; Corona, 1; Saticoy, 1; Santa Barbara, 1; Chula Vista, 1).

***Melospiza melodia graminea* Townsend.<sup>1</sup> SANTA BARBARA SPARROW.**

*Melospiza fasciata graminea* Townsend, Proc. U. S. Nat. Mus., 13, p. 139, Sept. 9, 1890—Santa Barbara Island, California (type in U. S. National Museum); Grinnell, Pub. Pasadena Acad. Sci., 1, p. 6, 1897—Santa Barbara Island.

*Melospiza cinerea graminea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 369, 1901—part, Santa Barbara Island (monog.).

*Melospiza melodia graminea* van Rossem, Condor, 26, p. 218, 1924—Santa Barbara Island (crit.).

*Range*.—Santa Barbara Island, California.

**\**Melospiza melodia clementae* Townsend.<sup>2</sup> SAN CLEMENTE SONG SPARROW.**

*Melospiza fasciata clementae* Townsend, Proc. U. S. Nat. Mus., 13, p. 139, Sept. 9, 1890—San Clemente Island, California (type in U. S. National Museum); idem, l.c., p. 140, 1890—Santa Rosa Island; Grinnell, Pub. Pasadena Acad. Sci., 1, p. 18, 1897—San Clemente (habits, song).

<sup>1</sup> *Melospiza melodia graminea* Townsend differs from the related races (*coronatorum* and *clementae*) by shorter wings and tail, and grayish (least brownish) coloration. From *M. m. clementae* it is furthermore distinguished by smaller bill, tarsi, and feet; from *M. m. coronatorum* by larger tarsi and feet (van Rossem, l.c.).

<sup>2</sup> *Melospiza melodia clementae* Townsend: Similar in coloration to *M. m. graminea*, but browner, slightly grayer than *coronatorum*, and decidedly grayer than *cooperi*; pectoral spotting more diffused and narrower than in *cooperi*, and flanks grayer; size larger than the related races (van Rossem, l.c.).

*Melospiza cinerea clementae* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 368, 1901—part, San Clemente and Santa Rosa Islands.

*Melospiza cinerea graminea* (not of Townsend) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 369, 1901—part, Santa Cruz Island.

*Melospiza melodia clementae* van Rossem, Condor, **26**, p. 219, 1924—part, San Clemente, Santa Cruz, and Santa Rosa Islands (crit.).

*Range*.—San Clemente, Santa Cruz, and Santa Rosa Islands, California; accidental at Santa Barbara, California.

15: California (San Clemente Island, 15).

***Melospiza melodia micronyx* Grinnell.<sup>1</sup> SAN MIGUEL SONG SPARROW.**

*Melospiza melodia micronyx* Grinnell, Proc. Biol. Soc. Wash., **41**, p. 37, March 16, 1928—San Miguel Island, California (type in Museum of Vertebrate Zoology, Berkeley).

*Melospiza cinerea clementae* (not of Townsend) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 368, 1901—part, San Miguel.

*Melospiza melodia clementae* van Rossem, Condor, **26**, p. 219, 1924—part, San Miguel.

*Range*.—San Miguel Island, California.

***Melospiza melodia coronatorum* Grinnell and Daggett.<sup>2</sup> CORONADOS SONG SPARROW.**

*Melospiza coronatorum* Grinnell and Daggett, Auk, **20**, p. 34, Jan., 1903—North Island, Los Coronados Islands, Lower California (type in coll. of J. Grinnell, now in Museum of Vertebrate Zoology, Berkeley; cf. Grinnell, Univ. Calif. Pub. Zool., **32**, p. 175, 1928); Wright, Condor, **11**, p. 100, 1909; Osburn, l.c., **11**, p. 137, 1909.

*Melospiza melodia clementae* (not of Townsend) McGregor, Bull. Cooper Orn. Cl., **1**, p. 88, 1899—Los Coronados (crit.); Carpenter, Condor, **20**, p. 124, 1918 (nest); Stephens, l.c., **23**, p. 97, 1921—Los Coronados.

*Melospiza cinerea clementae* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 1, p. 368, 1901—part, Los Coronados Islands.

*Melospiza melodia coronatorum* van Rossem, Condor, **26**, p. 218, 1924—Los Coronados (crit.); Grinnell, Univ. Calif. Pub. Zool., **32**, p. 175, 1928—Los Coronados Islands.

*Range*.—Los Coronados Islands, Lower California.

<sup>1</sup> *Melospiza melodia micronyx* Grinnell: Nearest to *M. m. graminea* and *M. m. clementae*, but differs in broader and blacker streaking throughout; grayer upper parts, especially on the pileum; paler flanks; smaller claws; blunter wing; and slightly greater size (Grinnell, l.c.).

<sup>2</sup> *Melospiza melodia coronatorum* Grinnell and Daggett is the brownest of all the insular races, and smallest in point of tarsi and feet; bill small as in *graminea* (van Rossem, l.c.).

**\**Melospiza melodia saltonis* Grinnell.<sup>1</sup> DESERT SONG SPARROW.**

*Melospiza melodia saltonis* Grinnell, Univ. Calif. Pub. Zool., 5, p. 268, April 9, 1909—margin of Salton Sea, one mile southeast of Mecca, Colorado desert, California (type in Museum of Vertebrate Zoology, Berkeley); idem, l.c., 12, p. 174, 1914—Colorado Valley; idem, l.c., 32, p. 175, 1928—Colorado delta, Lower California; Swarth, Proc. Calif. Acad. Sci., (4), 18, p. 328, 1929—southern Arizona; van Rossem, Trans. San Diego Soc. N. H., 6, p. 302, 1931—Sarc and Magdalena, Sonora (breeding, crit.); idem, Bull. Mus. Comp. Zool., 77, p. 190, 1934—Oposura and Granados, Sonora (crit.).

*Melospiza cinerea fallax* (not *Zonotrichia fallax* Baird) Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 362, 1901 (monog., full bibliog.).

**Range.**—Southwestern United States, from southern Nevada and southwestern Utah to southeastern California and southwestern Arizona, northeastern Lower California (Colorado delta), and northern Sonora, Mexico.

5: California (Fort Yuma, 1); Arizona (Phoenix, 2; Tucson, 1; Fairbank, 1).

***Melospiza melodia rivularis* Bryant. BROWN'S SONG SPARROW.**

*Melospiza fasciata rivularis* Bryant, Proc. Calif. Acad. Sci., (2), 1, p. 197, Sept. 29, 1888—Comondú, Lower California (type formerly in the California Academy of Science, destroyed by fire); idem, l.c., (2), 2, p. 22, 1889—Comondú (nest and eggs descr.).

*Melospiza cinerea rivularis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 363, 1901—southern Lower California (monog.).

*Melospiza melodia rivularis* Grinnell, Univ. Calif. Pub. Zool., 32, p. 176, 1928—Lower California.

**Range.**—South-central Lower California from San Ignacio to Comondú.

***Melospiza melodia goldmani* Nelson.<sup>2</sup> DURANGO SONG SPARROW.**

*Melospiza goldmani* Nelson, Auk, 16, p. 29, Jan., 1899—El Salto, Sierra Madre, western Durango, Mexico (type in U. S. National Museum).

*Melospiza cinerea goldmani* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 366, 1901—Durango (monog.).

**Range.**—Mountains of western Durango, Mexico (El Salto, Sierra Madre).

<sup>1</sup> *Melospiza melodia saltonis* Grinnell; Nearest to *M. m. fallax*, but very much paler throughout, the ground color being white ventrally and ashy dorsally, with streakings of pale hazel; superciliaries wholly white; general size much less. Wing (male), 59; tail, 67; bill, 10½ (Grinnell, l.c.).

Birds from southeastern Arizona (near Fairbank and Patagonia) and northern Sonora are stated by authors to be darker and grayer than Colorado River specimens.

<sup>2</sup> We are not acquainted with this race.

**Melospiza melodia pectoralis** J. W. von Müller. MEXICAN SONG SPARROW.

*Melospiza pectoralis* J. W. von Müller,<sup>1</sup> Reisen Ver. St., Canada und Mexico, 3, p. 583, 1865—Mexico (location of type unknown).

*Melospiza melodia* var. *mexicana* Ridgway, in Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 2, p. 18 (footnote), 1874—Puebla, Mexico (type in U. S. National Museum).

*Melospiza fallax* (not *Zonotrichia fallax* Baird) Sclater, Proc. Zool. Soc. Lond., 1864, p. 174—Valley of Mexico.

*Melospiza fasciata mexicana* Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 144, 1886—Huexotitla, Puebla (crit.).

*Melospiza heermanni* (not of Baird) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 388, 1886—part, Mexico (Valley of Mexico, Puebla).

*Melospiza cinerea mexicana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 365, 1901—southern Mexico (monog., bibliog.).

[*Melospiza fasciata*] subsp.  $\beta$  *Melospiza heermanni* Sharpe, Cat. Bds. Brit. Mus., 12, p. 704, 1888—part, spec. h-o, Puebla, Mexico.

*Range*.—Southeastern portion of Mexican plateau, in states of Puebla (Huexotitla), Hidalgo (Tulancingo), Tlaxcala (Apixaco), and Mexico (Lerma, Tlalpam, Volcan de Toluca, etc.).

**Melospiza melodia adusta** Nelson.<sup>2</sup> MICHOCAN SONG SPARROW.

*Melospiza adusta* Nelson, Auk, 16, p. 28, Jan., 1899—Patzcuaro, Michoacan, Mexico (type in U. S. National Museum).

*Melospiza cinerea adusta* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 366, 1901—Michoacan (monog.).

*Range*.—Southwestern edge of Mexican plateau, in State of Michoacan (Patzcuaro).

Genus **EMBERIZOIDES** Temminck

*Emberizoides* Temminck, Nouv. Rec. Pl. Col., livr. 19, text to pl. 114, Feb., 1822—type, by subs. desig. (Gray, List Gen. Subgen. Bds., p. 43, 1840),

*Emberizoides marginalis* Temminck=*Sylvia herbicola* Vieillot.

*Tardivola* Swainson, Nat. Hist. & Classif. Bds., 2, p. 281, July, 1837—type, by monotypy, "*Tardivola sphenura*"=*Emberizoides marginalis* Temminck.

*Chlorion* (not of Latreille, 1802) Temminck, Nouv. Rec. Pl. Col., livr. 102, Tabl. Méth., p. 40, Jan., 1839—new name for *Emberizoides* Temminck.

**\*Emberizoides herbicola herbicola** (Vieillot). WEDGE-TAILED GROUND FINCH.

*Sylvia herbicola* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 11, p. 192, June 21, 1817—based on "*Cola aguda encuentro amarillo*" Azara, No. 230; Paraguay.

<sup>1</sup> Müller's description agrees so minutely with specimens from Puebla that I do not see any reason why his name should not be adopted.

<sup>2</sup> We are not acquainted with this race.

- Emberizoides marginalis* Temminck, Nouv. Rec. Pl. Col., livr. 19, pl. 114, fig. 2,<sup>1</sup> Feb., 1822—"Brésil" (type, from Ypanemá, São Paulo,<sup>2</sup> in Leyden Museum).
- Sphenura fringillaris* Lichtenstein, Verz. Doubl. Berliner Mus., p. 42, Sept., 1823—Bahia, Brazil (type in Berlin Museum).
- Tardivola sphenura* (not *Passerina sphenura* Vieillot, 1818) Swainson, Nat. Hist. & Classif. Bds., 2, p. 281, July, 1837—based on Temminck, Nouv. Rec. Pl. Col., pl. 114, fig. 2.
- Embernagra macroura* (not *Fringilla macroura* Gmelin) d'Orbigny, Voy. Amér. Mérid., Ois., p. 285, 1839—Santa Cruz de la Sierra, Bolivia (spec. in Paris Museum examined).
- Emberizoides macr(o)urus* Hartlaub, Syst. Ind. Azara, p. 15, 1847—Paraguay (ex Azara); Burmeister, Syst. Uebers. Th. Bras., 3, p. 225, 1856—Lagõa Santa, Minas Geraes, and Bahia, Brazil; idem, Journ. Orn., 8, p. 256, 1860—near Paraná, Entre Ríos; idem, Reise La Plata St., 2, p. 485, 1861—near Paraná and in the northeastern district [of Argentina]; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 121, 1899—Pedras Brancas and São Lourenço, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 167, 1899—Cachoeira, São Paulo; Nicoll, Ibis, 1906, p. 668—Island Itaparica, Bahia; Ihering, Cat. Faun. Braz., 1, p. 388, 1907—part, Campos de Jordão (São Paulo) and Bahia; Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 358, 1909—Alto Itatiaya, São Paulo; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Caminho do Couto and Morro Redondo, Serra do Itatiaya, Brazil.
- Emberizoides macroura* Bonaparte, Consp. Gen. Av., 1, (2), p. 482, 1850—Paraguay and Bolivia.
- Tardivola marginalis* Cabanis, Mus. Hein., 1, p. 135, 1851—Brazil.
- Emberizoides sphenurus* Sclater, Cat. Coll. Amer. Bds., p. 118, 1862—Brazil and Bolivia; Pelzeln, Orn. Bras., 3, p. 230, 1870—São Paulo (Mattodentro, Taubaté, Ypanemá, Itararé), Paraná (Cimenterio [do Lambari]), and Matto Grosso (Cuyabá and [Villa Bella de] Matto Grosso); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 404—Minas Geraes (Lagõa Santa, Curvelho), São Paulo (Sorocaba, Batataes), and Rio de Janeiro (Taipú); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 607—Bolivia; Sclater and Hudson, Arg. Orn., 1, p. 63, 1888—Paraná, Entre Ríos.
- Emberizoides macrurus* subsp. *a* *Emberizoides herbicola* Sharpe, Cat. Bds. Brit. Mus., 12, p. 769, 1888—part, spec. d-l, Brazil (Pernambuco; Bahia; Ypanemá, "Pelotas," Rio Grande do Sul) and Bolivia.
- Emberizoides herbicola* Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—"Porto Real, Rio" (spec. examined); Chubb, Ibis, 1910, p. 641—Sapucay, Paraguay (nest descr.); Grant, Ibis, 1911, p. 100—Colonia Mihanovitch, Formosa, Argentina; Snethlage, Bol. Mus. Goeldi, 8, p. 434, 1914—Brazil and Bolivia.
- Emberizoides macrourus(a) herbicola* Allen, Bull. Amer. Mus. N. H., 3, p. 375, 1891—Chapada, Matto Grosso; Oberholser, Proc. U. S. Nat. Mus., 25,

<sup>1</sup> Erroneously quoted as fig. 1 in the text.

<sup>2</sup> According to the registers of the Vienna Museum.



p. 145, 1902—Sapucay, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 388, 1907—Cachoeira, São Paulo (spec. examined); Hartert and Venturi, Nov. Zool., 16, p. 180, 1909—Santa Fé (Mocoví, Ocampo) and Misiones (Posadas); Bertoni, Faun. Parag., p. 64, 1914—Paraguay (Mondah, Encarnación).

*Emberizoides macrourus ilarareus* Ihering, Cat. Faun. Braz., 1, p. 389, 1907—Batataes, Baurú, and Itararé, São Paulo (type in Museu Paulista examined; = worn plumage).

(?) *Emberizoides macrourus ypiranganus* Ihering, Cat. Faun. Braz., 1, p. 390, 1907—Ypiranga, São Paulo (type in Museu Paulista examined).

*Emberizoides herbicola herbicola* Hellmayr, Nov. Zool., 15, p. 36, 1908—Fazenda Esperança, Goyáz (crit.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 394, 1910 (range in Argentina); idem, l.c., 23, p. 367, 1912—Mburero, Paraguay; Holt, Bull. Amer. Mus. N. H., 57, p. 318, 1928—Bemfica, Serra do Itatiaya; Naumburg, l.c., 60, p. 358, 1930—Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 257, 1930—San José, Formosa.

*Emberizoides maerurus* [sic] *herbiculus* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 82, 1910—Pão d'Alho, near Recife, Pernambuco.

*Range*.—Eastern Bolivia (San Antonio, La Paz; Santa Cruz de la Sierra); southern half of Brazil, from Pernambuco, Bahia, Goyáz, and Matto Grosso to Rio Grande do Sul; Paraguay; northeastern Argentina (Colonia Mihanovitch and San José, Formosa; Ocampo and Mocoví, Santa Fé; Paraná, Entre Ríos; Posadas, Misiones).<sup>1</sup>

3: Bolivia (Buena Vista, Santa Cruz, 1); Brazil (Rio São Miguel, Goyáz, 2).

<sup>1</sup> Birds from Brazil agree well with others from Argentina (Santa Fé and Misiones), which in default of topotypical Paraguayan skins are taken to represent *E. h. herbicola*. Two adults from Bolivia do not seem to be separable either. As we have shown in another connection (Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 105-106, 1912), two of the supposed races discriminated by the late H. von Ihering among São Paulo birds are attributable to seasonal differences, his *E. m. herbicola* (from Cachoeira) being the worn breeding garb, *E. m. ilarareus* the freshly molted plumage. The type of the third form, *E. m. ypiranganus*, from Ypiranga, São Paulo, is remarkably small (wing, 65; tail, 92), and much more broadly marked with deeper black on the upper parts than any other specimen we have seen. Still we cannot believe in its distinctness, since it was obtained in the heart of the range of *E. h. herbicola*, and is, furthermore, recorded by Ihering from the Campo de Jordão, Serra do Itatiaya, where the typical race has also been found.

*Additional material examined*.—Brazil: Pão d'Alho, Recife, Pernambuco, 2; Bahia, 4; "Porto Real, Rio," 1; Agua Suja, near Bagagem, Minas Geraes, 2; Fazenda Esperança, Goyáz, 7; Mattodentro, São Paulo, 1; Ypanemá, São Paulo, 4; Cachoeira, São Paulo, 1; Itararé, São Paulo, 3; Ypiranga, São Paulo, 1; Victoria, São Paulo, 2; Pedras Brancas, Rio Grande do Sul, 2; Cuyabá, Matto Grosso, 1.—Bolivia: Santa Cruz, 1; San Antonio, Yungas of La Paz, 1.—Argentina: Posadas, Misiones, 1; Mocoví, Santa Fé, 1; Ocampo, Santa Fé, 1.

**\*Emberizoides herbicola subsp.<sup>1</sup> INTERMEDIATE WEDGE-TAILED GROUND FINCH.**

*Emberizoides macrourus* (not *Fringilla macroura* Gmelin) Selater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 572—Mexiana Island, Brazil (crit.).

*Emberizoides macrurus* subsp.  $\alpha$  *Emberizoides herbicola* (not *Sylvia herbicola* Vieillot) Sharpe, Cat. Bds. Brit. Mus., 12, p. 769, 1888—part, spec. c, Mexiana Island.

*Emberizoides herbicola herbicola* Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 104, 119, 1912—Mexiana Island (crit.).

*Emberizoides herbicola* Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 62, 1926—São Bento, Maranhão.

*Emberizoides herbicola* subsp. Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 303, 1929—São Bento, Maranhão.

*Range*.—Northern Brazil, from the island of Mexiana in the estuary of the Amazon to northern Maranhão (São Bento).

3: Brazil (São Bento, Maranhão, 3).

**\*Emberizoides herbicola sphenurus (Vieillot).<sup>2</sup> GUIANAN WEDGE-TAILED GROUND FINCH.**

*Fringilla macroura* (not of Pallas, 1764) Gmelin, Syst. Nat., 1, (2), p. 918, 1789—based on "Long-tailed Finch" Latham, Gen. Syn. Bds., 2, (1), p. 310; Cayenne.

*Passerina sphenura* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 25, p. 25, "1817" [= Dec. 26, 1818]<sup>3</sup>—Cayenne (location of type not stated).

*Tardivola macroura* Cabanis, Mus. Hein., 1, p. 135 (note\*\*\*), 1851—Cayenne (crit.).

<sup>1</sup> *Emberizoides herbicola* subsp.

The status of this form remains in doubt, as no additional material has come to hand. The only adult bird in good plumage—a male from Mexiana Island—combines the plain (unstreaked) flanks of *E. h. herbicola* with the small size (wing, 73; tail, 102) and strongly marked uropygium of *E. h. sphenurus*. In dimensions and absence of streaks underneath it is, however, closely approached by certain Colombian examples, and it is quite possible that an adequate series may show the inhabitants of northern Brazil to be inseparable from *sphenurus*.

*Additional material examined*.—Brazil: Mexiana Island, 3.

<sup>2</sup> *Emberizoides herbicola sphenurus* (Vieillot) differs from the nominate race by smaller size (wing of males, 69–72, of females 65–68; tail, 98–105, resp. 85–95), and darker, less fulvous coloration, with the rump and upper tail coverts boldly spotted with blackish, and more or less distinct suggestions of dusky streaks on flanks and crissum.

Birds from the Guianas and Venezuela agree well together, and three "Bogotá" skins are not different either. The few Santa Marta specimens examined appear to lack the streaking on the flanks.

*Additional material examined*.—French Guiana: Cayenne, 1.—Dutch Guiana: Paramaribo, 1.—British Guiana: Roraima, 3; Merumé Mts., 3.—Venezuela: inland of Cumaná (Santa Ana, etc.), 10; Cumbre de Valencia, Carabobo, 1; Orinoco Valley, 8; Escorial, Mérida, 3.—Colombia: "Bogotá," 3; "Santa Marta," 3.

<sup>3</sup> Cf. Mathews, Nov. Zool., 18, p. 12, 1921.

*Emberizoides macr(o)urus* Sclater, Proc. Zool. Soc. Lond., 24, p. 30, 1856—"Bogotá," Colombia; idem, Cat. Coll. Amer. Bds., p. 118, 1862—Cayenne and "Trinidad"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 237—San Cristóbal, Tachira, Venezuela; idem, l.c., 1879, p. 507—Antioquia and Medellín, Colombia (eggs descr.); Salvin, Ibis, 1885, p. 216—Merumé Mts. and Roraima, British Guiana; Sharpe, Cat. Bds. Brit. Mus., 12, p. 768, 1888—Colombia ("Bogotá," Medellín), Venezuela (San Cristóbal), "Trinidad," Cayenne, and British Guiana (Merumé Mts., Roraima); Phelps, Auk, 14, p. 364, 1897—San Antonio and Caripé [Bermúdez], Venezuela; Bangs, Proc. Biol. Soc. Wash., 12, pp. 141, 179, 1898—"Santa Marta," San Miguel, Macotama, and Palomina, Colombia (crit.); Berlepsch and Hartert, Nov. Zool., 9, p. 29, 1902—Altagracia and Quiribana de Caicara, Rio Orinoco, Venezuela; Berlepsch, l.c., 15, p. 121, 1908—Cayenne; Penard, Vog. Guyana, 2, p. 403, 1910—Surinam (nest and eggs); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 197, 1916—Altagracia, Quiribana de Caicara, and San Mateo de Caicara, Orinoco Valley, Venezuela.

*Emberizoides herbicola sphenurus* Berlepsch, Nov. Zool., 15, p. 321, 1908 (nomencl.); Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 69, 1912—Cumbre de Valencia, Carabobo, Venezuela; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 105 (in text), 1912—French Guiana to Colombia (crit.); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 92, 1918—vicinity of Paramaribo, Surinam; Todd and Carriker, Ann. Carnegie Mus., 14, p. 530, 1922—La Concepción, Pueblo Viejo, Chirua, Heights of Chirua, and San Miguel, Santa Marta region, Colombia (crit., altitudinal range); Chapman, Bull. Amer. Mus. N. H., 63, p. 122, 1931—Roraima (Paulo, Arabupu, Philipp Camp) and Venezuela (Esmeralda, Savanna Grande, and base of Mount Duida).

*Emberizoides sphenurus* Chapman, Bull. Amer. Mus. N. H., 36, p. 571, 1917—La Manuelita, Cauca Valley, and Quetame, below Bogotá, eastern Andes (east slope), Colombia; Chubb, Bds. Brit. Guiana, 2, p. 463, 1921—Roraima, upper Takutú Mountains, Ituribisci, Supenaam, Bartica, Makauria, Abary River, and Merumé Mountains.

*Range.*—Tropical and Subtropical zones of French, Dutch, and British Guiana west through Venezuela to Colombia (eastern Andes; Santa Marta region; La Manuelita, Cauca; Medellín, Rio Poru).<sup>1</sup>

2: Venezuela (Conejos, Mérida, 1); British Guiana (Georgetown, 1).

### *Emberizoides herbicola duidae* Chapman.<sup>2</sup> DUIDA WEDGE-TAILED GROUND FINCH.

*Emberizoides duidae* Chapman, Amer. Mus. Novit., 380, p. 25, Oct. 21, 1929—Savannah Hills, Mount Duida, Venezuela (type in the American Museum

<sup>1</sup> Trade skins are sometimes—no doubt, erroneously—labeled "Trinidad." There is no authentic record of the species from that island.

<sup>2</sup> *Emberizoides herbicola duidae* Chapman: Similar to *E. h. sphenurus*, but decidedly larger, the black markings above more extensive, the wings more narrowly margined with olive greenish, the tail-feathers predominately blackish with

of Natural History, New York); idem, Bull. Amer. Mus. N. H., 63, p. 122, 1931—Savannah Hills and Cumbre No. 17, Mount Duida.

*Range*.—Tableland of Mount Duida, southern Venezuela.

**Emberizoides herbicola floresae** Griscom.<sup>1</sup> CERRO FLORES  
WEDGE-TAILED GROUND FINCH.

*Emberizoides sphenurus floresae* Griscom, Amer. Mus. Novit., 141, p. 8, October 31, 1924—Cerro Flores, eastern Chiriquí, Panama (type in the American Museum of Natural History, New York).

*Range*.—Cerro Flores, eastern Chiriquí, in western Panama.

**Emberizoides herbicola hypochondriacus** Hellmayr.<sup>2</sup> CHIRIQUÍ  
WEDGE-TAILED GROUND FINCH.

*Emberizoides macrourus hypochondriacus* Hellmayr, Bull. Brit. Orn. Cl., 19, p. 28, Dec., 1906—Frances, Volcan de Chiriquí, Panama (type in Tring Collection, now in the American Museum of Natural History, New York).

*Emberizoides herbicola hypochondriacus* Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 105 (in text), 1912—Volcan de Chiriquí (crit.).

*Range*.—Tropical zone of western Panama (Frances, foothills of the Volcan de Chiriquí).

**\*Emberizoides herbicola lucaris** Bangs.<sup>3</sup> COSTA RICAN WEDGE-  
TAILED GROUND FINCH.

*Emberizoides sphenura lucaris* Bangs, Proc. New Eng. Zool. Cl., 4, p. 38, 1908—Boruca, Costa Rica (type in coll. of E. A. and O. Bangs, now in

narrow grayish or brownish edges. Wing, (male) 81, (female) 75; tail, 118, (female) 110; bill, 16½.

Casual examination of three specimens in the American Museum of Natural History shows this form to be a well-marked one, although according to my point of view it is clearly an altitudinal race of the widespread *E. h. sphenurus*. It appears to be restricted to the tableland of Mount Duida, its range being separated by wide areas of forest from the savannah country at the base of the same mountain, where *E. h. sphenurus* is met.

<sup>1</sup>*Emberizoides herbicola floresae* Griscom: "Similar to *E. h. hypochondriacus* and *E. h. lucaris*, but upper parts much less heavily streaked, and strikingly different in the ground-color being ochraceous olive-brown instead of sandy brown; under parts even more heavily streaked with black than in *hypochondriacus*; the sides, flanks, and under tail coverts more richly colored, more ochraceous even than in *lucaris*; tail, 77; bill, 11 mm." (Griscom, l.c.)

This race, based on a single female, needs substantiation by an adequate series.

<sup>2</sup>*Emberizoides herbicola hypochondriacus* Hellmayr: Nearest to *E. h. sphenurus*, but still smaller, the tail particularly shorter; upper parts more coarsely spotted with black; sides of breast, flanks, and under tail coverts streaked with blackish. Wing, 64–67, (female) 62–65; tail, 81–87, (female) 78–86; bill, 12–13.

*Material examined*.—Panama: Frances (alt. 2,000 ft.), Chiriquí, 11.

<sup>3</sup>*Emberizoides herbicola lucaris* Bangs: Very close to *E. h. hypochondriacus* and about the same size, but chest, sides, and flanks much more buffy brown;

Museum of Comparative Zoology, Cambridge, Mass., examined; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 389, 1930).

*Emberizoides sphenurus lucaris* Carriker, Ann. Carnegie Mus., 6, p. 911, 1910—Buenos Aires and Páso Real, Costa Rica (habits, nest).

*Emberizoides sphenura hypochondriacus* (not of Hellmayr) Bangs, Auk, 24, p. 309, 1907—Boruca and Barránca, Costa Rica.

*Range*.—Tropical zone of southwestern Costa Rica, in the valley of the Rio Grande de Térraba.

3: Costa Rica (Buenos Aires, 3).

### Genus CORYPHASPIZA G. R. Gray

*Leptonyx* (not of Swainson, 1833) Swainson, Anim. Menag., p. 314, Dec. 31, 1837—type, by monotypy, *Leptonyx melanotis* Swainson=*Emberizoides melanotis* Temminck.

*Coryphaspiza* Gray, List Gen. Bds., p. 47, 1840—new name for *Leptonyx* Swainson, 1837, preoccupied.

*Coryphospiza* Sharpe, Cat. Bds. Brit. Mus., 12, p. 765, 1888 (emendation).

### \**Coryphaspiza melanotis* (Temminck). BLACK-EARED FINCH.

*Emberizoides melanotis* Temminck, Nouv. Rec. Pl. Col., livr. 19, pl. 114, fig. 1, Feb., 1822—Paraguay (ex Azara, No. 140) and Brazil (the type in the Leyden Museum is a specimen obtained by Natterer at Ypanemá, São Paulo, Brazil); Bonaparte, Consp. Gen. Av., 1, (2), p. 483, 1850—southern Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 226, 1856—southern Minas Geraes, São Paulo, "Goyáz," and Matto Grosso; Sclater, Cat. Coll. Amer. Bds., p. 118, 1862—Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 404—Minas Geraes (Sete Lagoas, Taboleiro Grande) and São Paulo (Batataes); Pelzeln, Orn. Bras., 3, p. 230, 1870—São Paulo (Ypanemá, Scaramuza, Borda do Matto, Vendinha).

*Leptonyx melanotis* Swainson, Anim. Menag., p. 314, Dec. 31, 1837—plains of southern Brazil (type in coll. of W. Swainson, now in University Museum, Cambridge, Eng.).

*Coryphospiza melanotis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 767, 1888—southern Brazil; Allen, Bull. Amer. Mus. N. H., 3, p. 375, 1891—Chapada, Matto Grosso; Ihering, Rev. Mus. Paul., 3, p. 167, 1899—São Paulo; idem, Cat. Faun. Braz., 1, p. 388, 1907—Itararé and Batataes, São Paulo (range); Lillo, Apunt. Hist. Nat., 1, p. 44, 1909—Mocoví, Santa Fé;

the dusky streaking below narrower and more restricted to the flanks; the rump more rufescent. Wing, 64–66, (female) 64; tail, 91–93; bill, 12–13.

When comparing, on Mr. Bangs's request, three of his Costa Rican specimens with the original series of *hypochondriacus*, I noticed certain differences, and was led to believe that two races were involved. However, it should be kept in mind that the two series were not quite comparable as to season, the examples from Chiriquí being taken in November, those from Costa Rica in May and June. Considering the close proximity of the localities and the variability of other members of the group, I am now of opinion that study of more adequate material might lead to different conclusions as to the significance of the divergencies.

*Matèrial examined*.—Costa Rica: Barránca de Térraba, 2; Boruca, 1 (type).

Hartert and Venturi, Nov. Zool., 16, p. 180, 1909—Mocoví, Santa Fé (nest); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 396, 1910—Mocoví, Chaco; idem, Bol. Soc. Physis, 1, p. 358, 1914—Paraguay and Santa Fé (Mocoví, Ocampo); Bertoni, Faun. Parag., p. 63, 1914—Encarnación, Alto Paraná, Paraguay; Naumburg, Bull. Amer. Mus. N. H., 60, p. 358, 1930—Chapada, Matto Grosso.

*Range*.—Campo region of southern Brazil, from southern Minas Geraes (Sete Lagoas, Taboleiro Grande) across São Paulo to Matto Grosso (Chapada); Paraguay (Encarnación, Alto Paraná); northern Argentina (Mocoví and Ocampo, Chaco Santafecino).<sup>1</sup>

2: Argentina (Ocampo, Santa Fé, 2).

### Genus XENOSPINGUS Cabanis

*Xenospingus* Cabanis, Journ. Orn., 15, p. 347, 1867—type, by orig. desig., *Sylvia concolor* Lafresnaye and d'Orbigny.

#### \**Xenospingus concolor* (Lafresnaye and d'Orbigny). D'ORBIGNY'S SLATY FINCH.

*Sylvia concolor* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 20, 1837—Arica, Chile (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 216, pl. 18, fig. 1, 1838—Arica Valley, Chile.

*Xenospingus concolor* Cabanis, Journ. Orn., 15, p. 349, 1867—Peru (descr. of adult and young); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, pp. 173, 569—Tambo Valley, Dept. Arequipa, Peru; Taczanowski, Orn. Pér., 3, p. 26, 1886—Peru; Sharpe, Cat. Bds. Brit. Mus., 12, p. 799, 1888—Tambo Valley, Peru; Sclater, Proc. Zool. Soc. Lond., 1891, p. 134—Pica, Tarapacá, Chile; Berlepsch and Taczanowski, l.c., 1892, p. 376—Ica, Peru; E. Reed, Anal. Univ. Chile, 93, p. 199, 1896—Tarapacá; Lane, Ibis, 1897, p. 16—Pica, Tarapacá; Albert, Anal. Univ. Chile, 108, p. 236, 1901—Tarapacá and Tacna, Chile (monog.); Hellmayr, Nov. Zool., 28, p. 245, 1921—Arica (note on type); idem, Field Mus. Nat. Hist., Zool. Ser., 19, p. 51, 1932—Chacalluta (Tacna), Pica (Tarapacá), and Rio Loa (Antofagasta), Chile (crit., plumages).

*Range*.—Pacific slope of northern Chile, south to Antofagasta (Rio Loa), and southern Peru north to Ica.<sup>2</sup>

9: Chile (Chacalluta, north of Arica, Tacna, 7; Pica, Tarapacá, 1; Rio Loa, Antofagasta, 1).

<sup>1</sup> Birds from Santa Fé (Mocoví) agree with a topotypical series.

*Additional material examined*.—Brazil: Sete Lagoas, Minas Geraes, 1; Ypanemá, São Paulo, 4; Scaramuzza, São Paulo, 1; Vendinha, São Paulo, 1; Chapada, Matto Grosso, 1.—Argentina: Mocoví, Santa Fé, 6.

<sup>2</sup> Specimens from southern Peru appear to be identical with the Chilean ones. The species ranges from near sea-level up to 7,500 feet.

*Additional material examined*.—Chile: Arica, 1 (the type).—Peru: Tambo Valley, Dept. Arequipa, 5.

Genus **DONACOSPIZA** Cabanis<sup>1</sup>

*Donacospiza* Cabanis, Mus. Hein., 1, p. 136, Oct., 1851—type, by orig. desig.,  
*Sylvia albifrons* Vieillot.

**\*Donacospiza albifrons** (Vieillot). LONG-TAILED BUSH FINCH.

*Sylvia albifrons* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 11, p. 276, 1817  
 —based on "Cola aguda vientre de canela" Azara, No. 234; Paraguay.

*Ammodramus longicaudatus* Darwin, Zool. Beagle, 3, Birds, pl. 29, Jan., 1839;  
 Gould, l.c., p. 90, Nov., 1839—Montevideo and Maldonado, Uruguay  
 (type, from Montevideo, in British Museum).

*Poospiza oxyrhyncha* (Natterer MS.) Sclater, Proc. Zool. Soc. Lond., 1864,  
 p. 608, pub. early in 1865—Curytiba, Paraná, Brazil (type in coll. of  
 P. L. Sclater, now in British Museum); Pelzeln, Orn. Bras., 3, p. 229,  
 1870—Curytiba, Paraná.

*Donacospiza albifrons* Cabanis, Mus. Hein., 1, p. 136, 1851—Rio Grande  
 [do Sul], Brazil; Burmeister, Journ. Orn., 8, p. 254, 1860—Paraná, Entre  
 Ríos (spec. in Halle Museum examined); Sclater and Salvin, Proc. Zool.  
 Soc. Lond., 1869, pp. 161, 632—Conchitas, Buenos Aires; Durnford,  
 Ibis, 1877, p. 171—Prov. Buenos Aires (habits); Doering, in Roca, Inf.  
 Of. Exp. Rio Negro, p. 38, 1881—Arroyo Salado, near Fortín Inicitiativa,  
 Prov. Buenos Aires; White, Proc. Zool. Soc. Lond., 1883, p. 38—Cosquin,  
 Córdoba; Gibson, Ibis, 1885, p. 277—Paysandú, Uruguay (nest and eggs);  
 Withington, Ibis, 1888, p. 463—Lomas de Zamora, Buenos Aires (breed-  
 ing); Sclater and Hudson, Arg. Orn., 1, p. 49, 1888—along the shores of  
 the La Plata, Buenos Aires; Aplin, Ibis, 1894, p. 169—Uruguay; Holland,  
 Ibis, 1895, p. 214—Santa Elena, Buenos Aires; Hartert and Venturi, Nov.  
 Zool., 16, p. 180, pl. 2, fig. 36 (egg), 1909—Barracas al Sud, Buenos Aires  
 (nest and eggs descr.); Daguerre, El Hornero, 2, p. 271, 1922—Rosas,  
 Buenos Aires; Pereyra, l.c., 3, p. 172, 1923—Zelaya, Buenos Aires; Marelli,  
 Mem. Min. Obr. Públ. for 1922–23, p. 661, 1924—Prov. Buenos Aires;  
 Wetmore, Bull. U. S. Nat. Mus., 133, p. 427, 1926—Chaco (Las Palmas)  
 and Buenos Aires (below Lavalle); Holt, Bull. Amer. Mus. N. H., 57,  
 p. 138, 1928—Bemfica, Serra do Itatiaya, São Paulo.

*Poospiza albifrons* Burmeister, Reise La Plata St., 2, p. 484, 1861—Paraná,  
 Entre Ríos.

*Coryphospiza albifrons* Sharpe, Cat. Bds. Brit. Mus., 12, p. 766, 1888—  
 Brazil (Curytiba), Uruguay (Paysandú, Maldonado, Montevideo), and  
 Buenos Aires (Conchitas, Campana Railway); Ihering, Anuario Est. Rio  
 Grande do Sul, 16, p. 121, 1899—Pedras Brancas and São Lourenço,  
 Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 167, 1899—Piracicaba,  
 São Paulo; idem, Cat. Faun. Braz., 1, p. 388, 1907—Ypiranga, São Paulo;  
 Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 396, 1910 (range in

<sup>1</sup> *Donacospiza* Cabanis differs quite markedly from *Coryphospiza* by much  
 slenderer, straighter, and more pointed bill; proportionately much longer tail  
 (much longer than the wing, instead of decidedly shorter); narrower, more pointed  
 rectrices; similarity of the sexes, etc. It does not appear that the two groups are  
 closely related one to another. *Donacospiza* is merely a somewhat modified form of  
*Poospiza*, whereas *Coryphospiza* seems to be nearly allied to *Emberizoides*.

Argentina); Chubb, Ibis, 1910, p. 638—Sapucay, Paraguay; Grant, Ibis, 1911, p. 97—Cape San Antonio, Buenos Aires; Bertoni, Faun. Parag., p. 63, 1914—Paraguay; Tremoleras, El Hornero, 2, p. 24, 1920—Uruguay.

*Range*.—Southeastern Brazil, from São Paulo to Rio Grande do Sul; Uruguay; Paraguay; northeastern Argentina, in provinces of Chaco, Santa Fé, Córdoba, Entre Ríos, Misiones, and Buenos Aires.<sup>1</sup>

1: Uruguay (Quebrada de los Cuervos, Treinta y Tres, 1).

### Genus POOSPIZA Cabanis

*Poospiza* Cabanis, Arch. Naturg., 13, (1), p. 349, 1847—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 75, 1855), *Emberiza nigrorufa* Lafresnaye and d'Orbigny.

*Paospiza* Burmeister, Syst. Uebers. Th. Bras., 3, p. 215, 1856—emendation.

### *Poospiza thoracica* (Nordmann). RUFOUS-CHESTED WARBLING FINCH.

*Fringilla thoracica* Nordmann, in Erman, Reise um die Erde, Naturhist. Atlas, p. 10, pl. 4, fig. 1, 1835—"Brazil" (type in Berlin Museum).

*Pipillo ruftorques* Swainson, Anim. in Menag., p. 312, Dec. 31, 1837—"South Brazil" (type in coll. of W. Swainson, now in University Museum, Cambridge, Eng., examined).

*Carduelis rufigularis* Lesson, Rev. Zool., 2, p. 42, 1839—Brazil (type in coll. of Dr. Abeillé, Bordeaux).

*Poospiza thoracica* Cabanis, Arch. Naturg., 13, (1), p. 350, 1847 (synon.); Bonaparte, Consp. Gen. Av., 1, (2), p. 472, 1850—Brazil; Cabanis, Mus. Hein., 1, p. 137, 1851—southern Brazil; Sclater, Cat. Coll. Amer. Bds., p. 109, 1862—Brazil; Pelzeln, Orn. Bras., 3, pp. 229, 439, 1870—"Bahia" and Nova Friburgo, Rio; idem, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo; Sharpe, Cat. Bds. Brit. Mus., 12, p. 634, 1888—Nova Friburgo, Rio de Janeiro; Ihering, Rev. Mus. Paul., 4, p. 154, 1900—Nova Friburgo; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 186, 1905—Retiro do Ramos, Caminho do Couto, and Morro Redondo, Serra do Itatiaya; Ihering, Cat. Faun. Braz., 1, p. 383, 1907—São Paulo (Campo do Jordão and Itatiaya), Rio de Janeiro, and "Bahia"; Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 358, 1909—Serra do Itatiaya; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Serra do Itatiaya; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 190, 1926—Cará Pintada and São Domingo, Paraná (crit.); Holt, Bull. Amer. Mus. N. H., 57, p. 317, 1928—Alto Itatiaya and about Macieiras, Serra do Itatiaya.

*Paospiza thoracica* Burmeister, Syst. Uebers. Th. Bras., 3, p. 217, 1856—Nova Friburgo, Rio de Janeiro.

*Range*.—Southeastern Brazil, in states of Rio de Janeiro (Nova Friburgo; Colonia Alpina, Serra dos Orgãos), São Paulo (Serra do

<sup>1</sup> *Additional material examined*.—Brazil: Curytiba, Paraná, 7; Pedras Brancas, Rio Grande do Sul, 2.—Argentina: St. Borja, Misiones, 1; Paraná, Entre Ríos, 1; Barracas al Sud, Buenos Aires, 5; Las Talas, Buenos Aires, 2.



Itatiaya; Campo do Jordão), and Paraná (Cará Pintada; São Domingo).<sup>1</sup>

**Poospiza boliviana** Sharpe.<sup>2</sup> BOLIVIAN WARBLING FINCH.

*Poospiza boliviana* Sharpe, Cat. Bds. Brit. Mus., 12, p. 634, pl. 14, 1888—Bolivia (type in British Museum examined).

*Range*.—Temperate zone of Bolivia (Tapacari and Parotani, Dept. Cochabamba).

**Poospiza alticola** Salvin.<sup>3</sup> ANDEAN WARBLING FINCH.

*Poospiza alticola* Salvin, Nov. Zool., 2, p. 7, 1895—Huamachuco, Dept. Libertad, Peru (type in Salvin-Godman Collection, now in British Museum).

*Range*.—Temperate zone of northern Peru (Huamachuco, Dept. Libertad).

<sup>1</sup> Females have the rufous color underneath paler, the pectoral band decidedly narrower, and the upper parts more tinged with brownish. Birds from Itatiaya agree with others from Rio de Janeiro. The locality "Bahia" mentioned by Pelzeln on dealer's authority is open to doubt.

*Material examined*.—Rio de Janeiro: Nova Friburgo, 2; Colonia Alpina, Serra dos Orgãos, 4.—São Paulo: Campo do Jordão, 1; Serra do Itatiaya, 2.—"Bahia," 2.—"Brazil" (unspecified), 1.

<sup>2</sup> *Poospiza boliviana* Sharpe, an excellent species, resembles *P. hypochondria* in general form and proportions as well as in certain color characters (possession of a conspicuous white superciliary streak and of a distinct, though smaller, white subocular spot; absence of white alar speculum), but differs very markedly by pure white instead of buffy throat and middle of breast and abdomen, nearly white instead of deep cinnamon buff under tail coverts, and by the dull cinnamon rufous areas on the sides of the body being connected by a broad jugular band of the same color; whereas in *P. hypochondria* the chest is dingy gray, sharply defined from the much brighter chestnut rufous lateral zone. The white apical markings to the three lateral rectrices are less extensive, and the dorsal surface appears to be slightly more brownish. Wing (males), 77-79; tail, 68-71; bill, 11-13.

*Material examined*.—Bolivia: Tapacari (alt. 3,000 m.), Cochabamba, 1; Parotani (alt. 2,800 m.), Cochabamba, 1; unspecified, 1 (the type).

<sup>3</sup> *Poospiza alticola* Salvin: Upper parts neutral gray, pileum darker and nearly blackish on the lateral portion; wing coverts dusky, paler on the edges, the greater series externally margined with brownish gray; remiges dusky with grayish margins along the outer webs, these edges passing into whitish on the outer primaries; rectrices dusky, similarly edged with grayish, the outermost with an indistinct whitish apical fringe; broad superciliaries (from base of bill to sides of neck) buffy white; lores and sides of the head dull (brownish) black; under parts white; sides of throat spotted with blackish, these markings separating the white malar streak from the white middle throat; on each side of the foreneck a patch of bright tawny; sides of breast and abdomen, as well as the under tail coverts dingy ochraceous-buff; axillars and under wing coverts paler buffy; bill blackish, mandible brown; legs horn brown. Wing (female), 74; tail, 77; bill, 12.

This species seems to be allied to *P. hypochondria*, but in addition to other characters differs immediately by the practical absence of white in the tail.

*Material examined*.—Peru: Huamachuco, 1 (adult female).

**Poospiza hypochondria hypochondria** (Lafresnaye and d'Orbigny). RUFOUS-SIDED WARBLING FINCH.

*Emberiza hypochondria* (typog. err.) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 80, 1837—Sicasica and Palca, Bolivia (type, from Sicasica, in Paris Museum examined).

*Emberiza hypochondria* d'Orbigny, Voy. Amér. Mérid., Ois., p. 361, pl. 45, fig. 1, 1844—Enquisivi (Prov. Sicasica) and Palca (Prov. Ayupaya), Bolivia; Burmeister, Syst. Uebers. Th. Bras., 3, p. 216, 1856—Bolivia (ex d'Orbigny).

*Poospiza hypochondria* Bonaparte, Consp. Gen. Av., 1, (2), p. 472, 1850—Bolivia.

*Poospiza hypochondriaca* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 605—"Tilotilo (Yungas)," Inquisivi (Sicasica), and Palca (Ayupaya), Bolivia; Sharpe, Cat. Bds. Brit. Mus., 12, p. 636, 1888—"Tilotilo," Bolivia.

*Range*.—Temperate zone of Bolivia (in depts. of La Paz, Cochabamba, western Santa Cruz, and western Chuquisaca).<sup>1</sup>

**Poospiza hypochondria affinis** Berlepsch.<sup>2</sup> ARGENTINE RUFOUS-SIDED WARBLING FINCH.

*Poospiza hypochondriaca affinis* Berlepsch, Bull. Brit. Orn. Cl., 16, p. 97, May, 1906—"Tucumán, alt. 4,000 metr."=Lara, Prov. Tucumán, Argentina (type in coll. of H. von Berlepsch, now in Senckenberg Museum, Frankfurt, examined); idem, Orn. 14, p. 352, 1907—Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 179, 1909—Cachí (Salta), Norco and Anamá (Tucumán); Sanzín, El Hornero, 1, p. 152, 1918—Mendoza.

*Zonotrichia hypochondria* (not *Emberiza hypochondria* Lafresnaye and d'Orbigny) Burmeister, Journ. Orn., 8, p. 256, 1860—near Mendoza; idem,

<sup>1</sup> *Material examined*.—Bolivia: La Paz, 5; Palca (eighteen miles east of La Paz), 1; Sicasica, 1 (the type); Valle Grande, Santa Cruz, 1; Sucre, Chuquisaca, 2; unspecified, 2.

<sup>2</sup> *Poospiza hypochondria affinis* Berlepsch: Similar to the nominate race, but white tips to the external rectrices decidedly shorter; rump grayish, not brownish like the back; sides of the head paler and less blackish. Wing, 72–80, (female) 68–71; tail, 65–68; bill, 12–13.

The best character to tell this form is the lesser extent of the white tail-end. On the outermost rectrix, the white spot—measured on the inner web along the shaft—ranges from 15 to 25 mm. in Argentine, from 25–32 mm. in typical Bolivian birds. In *affinis* the rump is decidedly grayish, more or less contrasting with the brownish back, and not almost concolor with the latter as in *P. h. hypochondria*.

A single bird from Mendoza agrees with those from Tucumán. Adult specimens are required to ascertain the racial form found in the Bolivian Chaco, whence Lönnberg recorded a young individual s. n. *P. hypochondriaca*. Holland (Ibis, 1897, p. 166) lists a female taken on October 3, 1895, at Santa Elena, Entre Ríos, as *Zonotrichia hypochondria*. This is an extraordinary locality for a Temperate zone species, and as the specimen cannot be found in the British Museum either under the present or any of the allied species, the record is probably due to some misidentification.

*Material examined*.—Argentina: Cachí, Salta, 1; Lara, Tucumán, 1 (the type); Norco, Tucumán, 5; near Mendoza, 1.

Reise La Plata St., 2, p. 486, 1861—near Mendoza; Scater and Hudson, Arg. Orn., 1, p. 60, 1888—part, Mendoza.

*Poospiza hypochondria* Baer, Orn., 12, p. 217, 1904—Lara, Tucumán; Dabene, Anal. Mus. Nac. Buenos Aires, 18, p. 391, 1910—Tucumán (Norco, Lara), Catamarca, and Mendoza.

*Poospiza hypochondriaca* Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 9, 1897—Tala, Salta; (?) Lönnberg, Ibis, 1903, p. 470—Colonia Crevaux, Tarija, Bolivia; Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 44, 1905—Valle del Norco and Lara, Tucumán.

*Range.*—Temperate zone of northwestern Argentina, from Salta through Tucumán and Catamarca south to Mendoza.

**\**Poospiza hispaniolensis* Bonaparte.<sup>1</sup> BONAPARTE'S WARBLING FINCH.**

*Poospiza hispaniolensis* Bonaparte, Consp. Gen. Av., 1, (2), p. 473, 1850—"ex Ins. Sti Domin.," errore (type, labeled "Pérou(?)," examined in Paris Museum; descr. of male); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 471, 1930—Matucana, Peru.

*Poospiza bonapartii*(ei) Scater, Proc. Zool. Soc. Lond., 1867, p. 341, pl. 20 (male, female)—near Lima, Peru (type in coll. of P. L. Scater, now in British Museum); Taczanowski, l.c., 1877, p. 322—Tumbez, Peru; idem, Orn. Pér., 3, p. 30, 1886—Peru (Lima, Tumbez, "Paucal"); Sharpe, Cat. Bds. Brit. Mus., 12, p. 637, 1888—Lima; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 377—Lima and Ica, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 27, 1899—Puntilla de Santa Elena, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 625, 1926—La Plata Island, Santa Elena, and Santa Clara Island, Ecuador.

*Poospiza torquata* (not *Emberiza torquata* Lafresnaye and d'Orbigny) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 520—vicinity of Lima, Peru.

*Range.*—Arid Tropical zone of southwestern Ecuador, north to La Plata Island, off Manaví, and western Peru, south to Ica.

1: Peru (Matucana, 1).

**\**Poospiza torquata torquata* (Lafresnaye and d'Orbigny). RINGED WARBLING FINCH.**

*Emberiza torquata* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 82, 1837—Sicasica, Bolivia (type in Paris Museum examined).

<sup>1</sup> *Poospiza hispaniolensis* Bonaparte, while nearly allied to *P. torquata*, differs, nevertheless, from that species by much larger, reddish rather than dusky bill; much wider blackish pectoral band; mostly white under tail coverts, only the basal series being cinnamon-rufous; and by having the inner webs of the three lateral tail-feathers white excepting a dusky stripe along the shaft, widening apically. The female is immediately distinguished by the narrow, but very conspicuous dusky streaking on chest and flanks.

Apart from certain seasonal variations I am unable to find any constant differences between specimens from Ica, Lima, Trujillo, and Santa Elena. The type agrees with Lima examples.

*Additional material examined.*—Ecuador: Santa Elena, 2.—Peru: Trujillo, 1; Lima, 4; Ica, 2; unspecified, 1 (the type).

*Poospiza torquata* Bonaparte, Consp. Gen. Av., 1, (2), p. 473, 1850—Bolivia; Sclater, Cat. Coll. Amer. Bds., p. 110, 1862—Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 605—Sicasica and Tilotilo, Yungas, Bolivia; Sharpe, Cat. Bds. Brit. Mus., 12, p. 645, 1888—part, spec. a-f, Bolivia (Tilotilo).

*Range*.—Western Bolivia (Sicasica and Tilotilo, La Paz; Tapacari and Parotani, Cochabamba; Sucre, Chuquisaca).

3: Bolivia (Parotani, Cochabamba, 3).<sup>1</sup>

**\**Poospiza torquata pectoralis* Todd.<sup>2</sup> TODD'S WARBLING FINCH.**

*Poospiza pectoralis* Todd, Proc. Biol. Soc. Wash., 35, p. 89, July 12, 1922—Guanacos, Prov. Cordillera, Dept. Santa Cruz, Bolivia (type in Carnegie Museum; descr. of male).

*Poospiza torquata* (not *Emberiza torquata* Lafresnaye and d'Orbigny) Burmeister, Journ. Orn., 8, p. 255, 1860—valleys of the Sierra de Uspallata, Mendoza (descr.); idem, Reise La Plata St., 2, p. 484, 1861—same locality (descr.); White, l.c., 1882, p. 599—San Pedro, Santiago del Estero; Doering, in Roca, Inf. Of. Exp. Rio Negro, p. 38, 1881—north of the Rio Colorado (sight record); Sclater and Hudson, Arg. Orn., 1, p. 51, 1888—San Pedro (Santiago del Estero) and Mendoza (Sierra de Uspallata); Sharpe, Cat. Bds. Brit. Mus., 12, p. 645, 1888—part, spec. g, h, Argentina (Mendoza; Pampas); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 119, 1891—Córdoba; Holland, Ibis, 1893, p. 484—Santa Elena, Buenos Aires (spec. in British Museum examined); Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 10, 1897—Tala, Salta; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 179, 1902—Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Rosario, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 44, 1905—Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 178, 1909—Santiago del Estero, Salta (Arenal), and Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 392, 1910 (range in Argentina); Sanzin, El Hornero, 1, p. 152, 1918—Las Catitas, Mendoza; Giacomelli, l.c., 2, p. 69, 1923—La Rioja (rare); Dinelli, l.c., 3, p. 257, 1924—foot of Cueste de la Valle de Santa María, Tucumán

<sup>1</sup> *Additional material examined*.—Bolivia: Sicasica, 1 (the type); Tilotilo, 2; Tapacari, 1; Sucre, 1; unspecified, 4.

<sup>2</sup> *Poospiza torquata pectoralis* Todd: Similar to the nominate race, but differs by shorter, stouter bill; much broader black pectoral band; wider and more whitish margins to the tertials; and in particular longer white tips to the lateral rectrices, this color being basally cut off obliquely, not almost straight, across the inner web, as in *torquata*. Wing (males), 60–65; tail, 53–58; bill, 8½–9.

Examination of a good series of skins from both western Bolivia and Argentina shows the latter to be distinguishable by the above character without difficulty, and though we have not seen any material from the type locality, Mr. Todd's description fits them so admirably that we have no hesitation in applying his name *pectoralis* to the inhabitants of western Argentina, which heretofore had not been separated from *torquata* (d'Orbigny's type is an immature bird in rather poor condition, but two adults from the same general district, Tilotilo, agree well with others from Cochabamba and Sucre).

*Additional material examined*.—Argentina: Arenal, Salta, 1; Tucuman, 2; Las Tenas, Santiago del Estero, 1; Mendoza, 2; Santa Elena, Buenos Aires, 1.

(nest and eggs descr.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 423, 1926—west of Puerto Pinasco, Paraguay, and Victorica, Pampa; Pereyra, El Hornero, 4, p. 33, 1927—Conhelo, Pampa (rare); Smyth, l.c., 4, p. 145, 1928—Santa Elena, Entre Ríos (eggs descr.); Laubmann, Verh. Orn. Ges. Bay., 20, p. 327, 1934—La Geraldina, Santa Fé.

*Range*.—Tropical zone of eastern Bolivia (Guanacos, Prov. Cordillera, Dept. Santa Cruz), western Paraguay (200 kilometers west of Puerto Pinasco), and northern Argentina, south to Mendoza and Pampa, east to western Buenos Aires (Santa Elena).<sup>1</sup>

5: Argentina (Concepción, Tucumán, 4; Arenal, Salta, 1).

**\*Poospiza melanoleuca** (Lafresnaye and d'Orbigny). WHITE-AND-GRAY WARBLING FINCH.

*Emberiza melanoleuca* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 82, 1837—Chiquitos, Bolivia (type in Paris Museum examined); Hartlaub, Syst. Ind. Azara, p. 10, 1847—Paraguay (ex Azara, No. 144).

*Poospiza melanoleuca* Bonaparte, Consp. Gen. Av., 1, (2), p. 473, 1850—"Brasil merid.," Paraguay, and Bolivia; Burmeister, Journ. Orn., 8, p. 254, 1860—Banda Oriental and Paraná, Entre Ríos (descr.); idem, Reise La Plata St., 2, p. 484, 1861—eastern La Plata states, Banda Oriental, and Entre Ríos (eggs descr.); Doering, Period. Zool. Arg., 2, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 605—Chiquitos, Bolivia (ex d'Orbigny); Salvin, Ibis, 1880, p. 354, pl. 9, fig. 2—Tucumán; White, Proc. Zool. Soc. Lond., 1882, p. 599—Orán, Salta; Barrows, Bull. Nutt. Orn. Cl., 8, p. 130, 1883—Concepción del Uruguay, Entre Ríos; Sclater and Hudson, Arg. Orn., 1, p. 52, 1888—Argentina; Sharpe, Cat. Bds. Brit. Mus., 12, p. 638, 1888—Tucumán, Salta, Córdoba (Cosquin), and Catamarca (Fuerte de Andalgalá); Stempelmann and Schulz, Bol. Acad. Nat. Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 119, 1891—Prov. Córdoba; Kerr, Ibis, 1892, p. 126—Fortín Donovan, lower Pilcomayo; Koslowsky, Rev. Mus. La Plata, 6, p. 279, 1895—Chilecito, La Rioja; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 6, 1895—Paraguay (Bahia Negra), Salta (Chilcas), and Tucumán (San Pablo); idem, l.c., 12, No. 292, p. 9, 1897—Salta (Campo Santo, Tala), Jujuy (San Lorenzo), and Bolivia (Caiza, Tarija); Kerr, Ibis, 1901, p. 223—Chaco Paraguayo; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 179, 1902—Tucumán; Baer, Ornith., 12, p. 217, 1904—Santa Ana, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Orán, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 44, 1905—Tucumán; Hartert

<sup>1</sup>The specimen obtained by A. H. Holland on March 5, 1893, at Santa Elena, Buenos Aires, is a bird in juvenile plumage. The black pectoral band is not yet developed, but replaced by a deep buff spot passing laterally into dingy olive gray on the sides of the chest (this area being slate gray in adults) and buffy brown on the flanks; the under tail coverts are buff (not cinnamon-rufous, as in adults), only the shorter ones tinged with cinnamonous. While the sides of the head are dull sooty blackish, surmounted by a broad white superciliary streak, exactly as in adult birds, the dorsal surface is pale olivaceous instead of gray, and the white tips to the uropygial feathers are barely suggested.

and Venturi, Nov. Zool., 16, p. 179, 1909—Mocoví, Chaco, and Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 391, 1910 (range in Argentina); Chubb, Ibis, 1910, p. 639—Ybitimí, Paraguay; Grant, Ibis, 1911, p. 98—"Pan de Azucar," Matto Grosso, and Colonia Mihanovitch, Formosa; Bertoni, Faun. Parag., p. 64, 1914—Chaco-í, Paraguay; Serié and Smyth, El Hornero, 3, p. 53, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 69, 1923—La Rioja; Dinelli, l.c., 3, p. 258, 1924—Tucumán (nest and eggs descr.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 420, 1926—Chaco (Resistencia, Las Palmas), Formosa (Riacho Pilaga, Formosa), Tucumán (Tapia), and Paraguay (west of Puerto Pinasco); Friedmann, Bull. Mus. Comp. Zool., 68, p. 235, 1927—Tucumán (Concepción) and Entre Ríos (Santa Elena); Pereyra, El Hornero, 4, p. 27, 1927—Escobar, Buenos Aires; Smyth, l.c., 4, p. 145, 1928—Manchalá, Tucumán (eggs descr.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 355, 1930—"Pan de Azucar," Matto Grosso (ex Grant); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 256, 1930—Bolivia (Villa Montes, Tarija) and Formosa (Lapango, San José, Tapikiolé, Yuncá Viejo); idem, Verh. Orn. Ges. Bay., 20, p. 327, 1934—La Geraldina, Santa Fé.

*Paospiza melanoleuca* Burmeister, Syst. Uebers. Th. Bras., 3, p. 218, 1856.

*Range*.—Eastern Bolivia; extreme southwestern Brazil, in State of Matto Grosso (one record from Pão d'Azucar); Paraguay; Uruguay; northern Argentina, from the northern border south to La Rioja, Córdoba, Santa Fé, Buenos Aires (one record from Escobar), and Entre Ríos.<sup>1</sup>

10: Argentina (Concepción, Tucumán, 5; Rio Salí, Tucumán, 1; Tafi Viejo, Tucumán, 1; Ocampo, Santa Fé, 2); Uruguay (Rio Uruguay, Soriano, 1).

## **Poospiza cinerea** Bonaparte.<sup>2</sup> CINEREOUS WARBLING FINCH.

*Poospiza cinerea* Bonaparte, Conspect. Gen. Av., 1, (2), p. 473, end of 1850—"Brazil"—Minas Geraes (type in Paris Museum examined; descr. of young); Sclater, Cat. Coll. Amer. Bds., p. 110, 1862—Brazil; Sharpe, Cat. Bds. Brit. Mus., 12, p. 639, 1888—Goyáz; Allen, Bull. Amer. Mus. N. H., 3, p. 372, 1891—Chapada, Matto Grosso; Ihering, Cat. Faun. Braz., 1, p. 383, 1907—São Paulo (Rincão), Minas Geraes (Vargem

<sup>1</sup> There is no difference in coloration between Bolivian specimens and others from Paraguay and Argentina, but the latter average very slightly smaller.

*Additional specimens examined*.—Bolivia: Chiquitos, 1 (the type); San José (Rio Mizque), Cochabamba, 1; Samaipata, Santa Cruz, 3.—Paraguay: Bahía Negra, 2; Bernalcué, near Asunción, 1.—Argentina: Corrientes, 1; Chilcas, Salta, 1; Tucumán, 6; Mocoví, Chaco Santafecino, 3; Cosquin, Córdoba, 2.

<sup>2</sup> *Poospiza cinerea* Bonaparte is nearly allied to, and probably conspecific with, *P. melanoleuca*, from which it differs by longer wings; longer and heavier bill; duller, more sooty sides of the head, and by having also, in the male sex, the pileum and hindneck slate gray like the back. Young birds have the dorsal surface tinged with olivaceous, the cheeks and auriculars dark brown, the lower parts shaded with pale yellow, the flanks pale brownish buff instead of gray. The type of *P. cinerea* is in this plumage and agrees very well with a young female

Alegre), and Matto Grosso (Porto Faya); Hellmayr, Nov. Zool., 15, p. 35, 1908—Goyáz City and Rio Thesouras, Goyáz; Naumburg, Bull. Amer. Mus. N. H., 60, p. 355, 1930—Matto Grosso (Cuyabá, Chapada, Porto Faya, Santa Anna [da Chapada]).

*Poospiza schistacea* Cabanis, Mus. Hein., 1, p. 137, Oct., 1851—Brazil (type in Heine Collection, now in Municipal Museum, Halberstadt); Pelzeln, Orn. Bras., 3, p. 229, 1870—"Minas" [Geraes], São Paulo (Rio Sapucahy, Rio das Pedras), Goyáz (Goyáz), and Matto Grosso (Cuyabá); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 407—Lagõa Santa and Sete Lagõas, Minas Geraes.

*Paospiza schistacea* Burmeister, Syst. Uebers. Th. Bras., 3, p. 218, 1856—Lagõa Santa, Minas Geraes (spec. in Halle Museum examined).

*Range.*—Campo region of central Brazil, from western Minas Geraes (Lagõa Santa, Sete Lagõas, Vargem Alegre) and northern São Paulo (Rincão, Rio Sapucahy, Rio das Pedras) to Goyáz (Goyáz, Rio Thesouras) and Matto Grosso (Cuyabá, Santa Anna da Chapada, Chapada, Porto Faya).

**\**Poospiza nigro-rufa nigro-rufa* (Lafresnaye and d'Orbigny).**

BLACK-AND-CHESTNUT WARBLING FINCH.

*Emberiza nigro-rufa* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 81, 1837—based on "Chipiu negro y canela" Azara, No. "162" [=142] (Paraguay and La Plata River), and Santa Fé, Argentina;<sup>1</sup> Hartlaub, Syst. Ind. Azara, p. 10, 1847—Paraguay (ex Azara, No. 142).

*Pipillo personata* Swainson, Anim. Menag., p. 311, Dec. 31, 1837—"Brazil" (type in coll. of W. Swainson, now in University Museum, Cambridge, Eng., examined); Darwin, Zool. Beagle, 3, Birds, p. 98, pl. 35 (adult and young), 1839—Maldonado, Uruguay.

*Poospiza nigro-rufa* Cabanis, Arch. Naturg., 13, (1), p. 350, 1847; Bonaparte, Consp. Gen. Av., 1, (2), p. 472, 1850—Brazil merid., Paraguay, and "Chile," errore; Burmeister, Journ. Orn., 8, p. 254, 1860—Banda Oriental and Paraná, Entre Ríos; idem, Reise La Plata St., 2, p. 484, 1861—same localities; Sclater, Cat. Coll. Amer. Bds., p. 109, 1862—"Brazil"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 140—Conchitas, Buenos Aires; Hudson, l.c., 1870, p. 113—Conchitas (habits); Pelzeln, Orn. Bras., 4, p.

from the Rio Sapucahy, São Paulo. It was collected by Auguste de Saint-Hilaire, and according to the date (1818) when it was received at the Paris Museum, must have been secured in Minas Geraes. Wing, (male) 66–70, (female) 62–65; tail, 58–63, (female) 57–60; bill, 10–11.

*Material examined.*—Minas Geraes: Lagõa Santa, 1; unspecified, 1.—São Paulo: Rio Sapucahy, 3; Rio das Pedras, 1.—Goyáz: Goyáz, 4; Rio Thesouras, 2.—Matto Grosso: Cuyabá, 2; Santa Anna da Chapada, 1.—"Brazil," 2.

<sup>1</sup> It seems to me that Lafresnaye and d'Orbigny's action must be construed as a mere naming of Azara's "Chipiu negro y canela" described under No. 142 (erroneously numbered "162" in Walckenaer's French edition), since these authors add only a short characterization of the immature plumage with striped under parts not mentioned in Azara's account. We may, therefore, accept Paraguay as type locality of *E. nigro-rufa*, a name that has unquestionable priority over Swainson's.

439, 1870—São Luiz [Rio Grande do Sul]; Sclater, Proc. Zool. Soc. Lond., 1872, p. 548—Rio Negro, Patagonia; Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; Durnford, Ibis, 1877, p. 171—Baradéro, Buenos Aires; Doering, in Roca, Inf. Ofic. Exp. Rio Negro, p. 38, 1881—Rio Sauce (Chico), near Fortín Argentina, Buenos Aires; Barrows, Bull. Nutt. Orn. Cl., 8, p. 129, 1883—Concepción del Uruguay, Entre Ríos; Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 82, 1884—near Arroyo Tandil, Buenos Aires; Gibson, Ibis, 1885, p. 277—Paysandú, Uruguay; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 123, 1885—Taquara, Rio Grande do Sul; Withington, Ibis, 1888, p. 463—Lomas de Zamora, Buenos Aires; Sclater and Hudson, Arg. Orn., 1, p. 49, 1888—Argentina (habits); Aplín, Ibis, 1894, p. 169—Soriano, Uruguay; Hartert and Venturi, Nov. Zool., 16, p. 178, 1909—Barracas al Sud, Buenos Aires, and La Soledad, Entre Ríos; Chubb, Ibis, 1910, p. 640—Sapucay, Paraguay; Dabbene, El Hornero, 1, p. 245, 1919—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 23, 1920—Uruguay (Montevideo, Canelones, Flores); Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 172, 1923—San Isidro, Zelaya, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 660, 1924—Buenos Aires (Punta Lara, Isla Martín García), Entre Ríos, and Uruguay; Wetmore, Bull. U. S. Nat. Mus., 133, p. 421, 1926—Chaco (Las Palmas), Buenos Aires (Berazategui, Lavalle), and Uruguay (La Paloma, San Vicente, Carrasco, Lazcano, Rio Negro); Wilson, El Hornero, 3, p. 361, 1926—General López, Santa Fé.

*Paospiza nigrorufa* Burmeister, Syst. Uebers. Th. Bras., 3, p. 216, 1856—"Santa Catharina," Rio Grande do Sul, Montevideo, etc.

*Poospiza erythrophrys* (not of Sclater) White, Proc. Zool. Soc. Lond., 1882, p. 599—Rio Lujan, Buenos Aires.

*Poospiza personata* Sharpe, Cat. Bds. Brit. Mus., 12, p. 640, 1888—Uruguay (Maldonado), Buenos Aires (Belgrano, Punta Lara, Conchitas), and Río Negro; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 121, 1899—Mundo Novo and Pedras Brancas, Rio Grande do Sul; idem, Cat. Faun. Braz., 1, p. 383, 1907—Barracas al Sud, Buenos Aires (range); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 391, 1910 (range in Argentina, excl. of Córdoba, Catamarca, and Tucumán); Grant, Ibis, 1911, p. 98—Los Yngleses (Ajó), Buenos Aires, and Bella Vista, Corrientes; Bertoni, Faun. Parag., p. 64, 1914—Puerto Bertoni, Paraguay; Hussey, Auk, 33, p. 398, 1916—La Plata (song, nest, and eggs); Gibson, Ibis, 1918, p. 385—Cape San Antonio, Buenos Aires (habits); Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 660, 1924—Barracas al Sud, Buenos Aires.

*Range*.—Extreme southern Brazil (Rio Grande do Sul);<sup>1</sup> Uruguay; Paraguay; northeastern Argentina, from Chaco and Corrientes through Santa Fé, Entre Ríos, and Buenos Aires to the lower Rio Negro.<sup>2</sup>

<sup>1</sup> In Santa Catharina, quoted by Burmeister, this species has never been found again.

<sup>2</sup> Birds from Rio Grande do Sul, Uruguay, and Argentina agree well with a single male from Paraguay.

*Additional material examined*.—Brazil, Rio Grande do Sul: São Luiz, 1; São Lourenço, 1; Taquara do Mundo Novo, 4.—Paraguay: Sapucay, 1.—Argentina: Santa Fé, 1; La Soledad, Entre Ríos, 1; Barracas al Sud, Buenos Aires, 4.



12: Uruguay (Quebrada de los Cuervos, Treinta y Tres, 5; San Vicente de Castillos, Rocha, 2; Rio Uruguay, Soriano, 1; Polanco, Minas, 1); Argentina, Buenos Aires (Quilmes, 1; Avellaneda, 1; unspecified, 1).

**\**Poospiza nigro-rufa whitii* Sclater.<sup>1</sup> WHITE'S WARBLING FINCH.**

*Poospiza whitii*(ei) Sclater, Proc. Zool. Soc. Lond., 1881, p. 43, pl. 9 (male, female)—Cosquin, Córdoba, Argentina (type in coll. of P. L. Sclater, now in British Museum); Sclater and Hudson, Arg. Orn., 1, p. 50, 1888—Cosquin; Sharpe, Cat. Bds. Brit. Mus., 12, p. 641, 1888—Cosquin; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 119, 1891—Cosquin; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 7, 1895—San Pablo, Tucumán; idem, l.c., 12, No. 292, p. 9, 1897—Salta; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 179, 1902—Tucumán; Baer, Ornith., 12, p. 217, 1904—Tapia and Criolla, Tucumán; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 43, 1905—Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 179, 1909—Tucumán (Tapia, Ticucho, Cerro de Tucumán, Los Vasquez); Dabbene, Anal. Mus. Nac. Buenos Aires, 8, p. 392, 1910 (range in Argentina); Dinelli, El Hornero, 3, p. 257, 1924—Tucumán (nest and eggs); Wetmore, Bull. U. S. Nat. Mus., 133, p. 421, 1926—Tapia, Tucumán, and Salta; Friedmann, Bull. Mus. Comp. Zool., 68, p. 235, 1927—Concepción, Tucumán.

*Poospiza nigrorufa* (not *Emberiza nigro-rufa* Lafresnaye and d'Orbigny) Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 119, 1891—Córdoba.

*Poospiza personata* (not *Pipillo personata* Swainson) Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 179, 1902—Tucumán (sight record by Dinelli); Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Rosario de Lerma, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 43, 1905—Tucumán (sight record).

*Range*.—Western Argentina, from the Sierra of Córdoba (Cosquin) north to Tucumán and Salta, and central Bolivia (Olguin, near Valle Grande, Dept. Cochabamba).

4: Argentina (Concepción, Tucumán, 4).

<sup>1</sup> *Poospiza nigro-rufa whitii* Sclater: Similar to *P. n. nigro-rufa*, but with much longer white tips to the two lateral pairs of rectrices; adult males more purely slate gray above, and the rufous color on throat, chest, and sides much darker. Wing (male), 63–68; tail, 62–65; bill, 11–12.

This form, while strongly marked in the male sex, is clearly but the western representative of *P. n. nigro-rufa*. The much duller-colored females are often so similar to the nominate race as to be distinguished only by the greater extent of white on the lateral tail-feathers, and have no doubt given rise to the records of *P. personata* and *P. nigro-rufa* from the mountainous parts of western Argentina. An adult male from Olguin, Bolivia, agrees with topotypes except in having even somewhat longer white tips to the outer rectrices.

*Additional material examined*.—Argentina: Cosquin, Córdoba, 10; Tapia, Tucumán, 6; La Criolla, Tucumán, 3; Tucumán, 3.—Bolivia: Olguin, Cochabamba, 1.

**Poospiza nigro-rufa wagneri** Sztolcman.<sup>1</sup> WAGNER'S WARBLING FINCH.

*Poospiza wagneri* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 231, Dec. 31, 1926—Chulumani, Dept. La Paz, Bolivia (type in Warsaw Museum).

*Range*.—Subtropical zone of western Bolivia (Chulumani, Dept. La Paz).

**\*Poospiza erythrophrys** Sclater. RED-BROWED WARBLING FINCH.

*Poospiza erythrophrys* Sclater, Ibis, (4), 5, p. 599, pl. 17, fig. 1, 1881—Sierra de Totoral, Catamarca (type in coll. of P. L. Sclater, now in British Museum); Sclater and Hudson, Arg. Orn., 1, p. 50, 1888—Sierra de Totoral, Catamarca, and "twenty miles north of Buenos Aires" (errore);<sup>2</sup> Sharpe, Cat. Bds. Brit. Mus., 12, p. 642, 1888—Sierra de Totoral; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 9, 1897—Tala and Lesser, Salta; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 178, 1902—Tafi, Tucumán; Baer, Ornith., 12, p. 217, 1904—La Criolla, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Rosario de Lerma, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 43, 1905—Tafi, Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 178, 1909—Quebrada de las Piedras and Tafi Viejo, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 392, 1910 (range in Argentina); Dinelli, El Hornero, 1, p. 64, 1918—Cerro de Tucumán (nest and eggs descr.); Smyth, l.c., 4, p. 146, 1928—Tafi Viejo (eggs descr.).

*Range*.—Temperate zone of northwestern Argentina, in provinces of Catamarca, Tucumán, and Salta.<sup>3</sup>

2: Argentina (Concepción, Tucumán, 2).

**Poospiza rubecula** Salvin.<sup>4</sup> RUFOUS-BREASTED WARBLING FINCH.

*Poospiza rubecula* Salvin, Nov. Zool., 2, p. 8, 1895—Cajabamba and Huamachuco, Peru (type, from Huamachuco, in Salvin-Godman Collection, now in British Museum, examined).

<sup>1</sup> *Poospiza nigro-rufa wagneri* Sztolcman: Similar to *P. n. whitii*, but adult male without white on the chin, and with a more extensive white malar streak; female not distinguishable. Wing, 67, (female) 62; tail, 64, (female) 61; bill, 11.

The only male that we have seen lacks indeed the white chin-spot, which is more or less conspicuous in all specimens of *whitii*, and the white malar streak is both longer and wider. The other supposed differences mentioned by Sztolcman have no existence, and I am led to believe this author did not actually compare specimens of the Argentine form, but merely consulted Sclater's plate (inaccurate in several respects), when drawing up the description of *P. wagneri*.

*Material examined*.—Bolivia: Chulumani, 2.

<sup>2</sup> White's record from Rio Lujan, Buenos Aires, refers to *P. n. nigro-rufa*, as the example, now in the British Museum, clearly shows.

<sup>3</sup> Eight specimens from Tucumán and two from Salta (Tala, Lesser) examined.

<sup>4</sup> *Poospiza rubecula* Salvin: Adult male.—Upper parts slate gray, more or less suffused with olivaceous, especially on the mantle; forehead (as far back as the middle of the eye) and a continuous superciliary streak (protracted to above the posterior margin of the auriculars) bright cinnamon-rufous; lores, sides of head,

*Range*.—Temperate zone of northern Peru, from Libertad (Cajabamba, Huamachuco) to Lima (Surco).

**\*Poospiza ornata (Leybold). PRETTY WARBLING FINCH.**

*Phrygilus ornatus* (Landbeck MS.) Leybold, Journ. Orn., 13, p. 405, 1865—on the road between the guardhouse at the Portillo Pass and Melocoton, Mendoza (type in Museo Nacional, Santiago de Chile; cf. Gigoux and Looser, Bol. Mus. Nac. Santiago, 13, p. 20, 1930); Landbeck, Anal. Univ. Chile, 26, p. 717, 1865—same locality.

*Poospiza ornata* Sclater and Salvin, Nomencl. Av. Neotrop., p. 30, 1873—Mendoza; Sclater and Hudson, Arg. Orn., 1, p. 51, 1888—Mendoza; Sharpe, Cat. Bds. Brit. Mus., 12, p. 643, 1888—Mendoza and Pampas Argentinas; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 119, 1891—Córdoba; Koslowsky, Rev. Mus. La Plata, 6, p. 279, 1895—Chilecito, La Rioja; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 179, 1902—Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 44, 1905—Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 392, 1910 (range in Argentina); Giacomelli, El Hornero, 3, p. 69, 1923—La Rioja (not common); Pereyra, l.c., 3, p. 172, 1923—Moreno, F.C.O., Buenos Aires; Wetmore, Bull. U. S. Nat. Mus., 133, p. 422, 1926—Victorica, Pampa (descr. of young, and habits).

*Range*.—Northern Argentina, in provinces of Tucumán (Tucumán), La Rioja (Chilecito), Córdoba, Pampa (Victorica), Buenos Aires (Moreno, Torrecita), and Mendoza (between Portillo Pass and Melocoton).<sup>1</sup>

1: Argentina (Torrecita, Buenos Aires, 1).

and chin sooty black, forming a well-circumscribed dusky patch; throat, breast, and sides deep cinnamon-rufous, the latter strongly suffused with dark olive gray; middle of belly extensively white; under tail coverts deep cinnamon-rufous; axillars and under wing coverts slate gray; upper wing coverts black, edged with slate gray, the larger series with light olivaceous brown; remiges dusky, the outer ones barely fringed with grayish, the innermost secondaries broadly edged with light olive brown; rectrices black with narrow slate gray external margins. Bill blackish brown, below pale brown. Wing, 76–78; tail, 70–72; bill, 12. An immature female without rufous on forehead and superciliary region is browner above; the sides of the head and the chin-spot are sooty gray; that portion of the under parts which is rufous in the adult male is broadly spotted with dark gray on a white ground, and on throat and breast intermixed with rufous edges.

This species, though allied to *P. erythrophrys*, is very distinct, being much larger, without any white on wings and tail, with black (instead of gray) sides of the head, with a black chin-spot, etc.

An adult male from Surco (alt. 8,000 ft.), Dept. Lima, is identical with the type.

*Material examined*.—Peru: Huamachuco, 1 (the type); Cajabamba, 2; Surco, 1.

<sup>1</sup> The breeding range of this species remains to be determined. Wetmore found adults accompanied by grown young towards the end of December at Victorica, Pampa. Its nest and eggs are still unknown. Having seen but three specimens of rather poor quality (from Mendoza), I am not in a position to throw any light on its affinities, although it would seem to be allied to *P. erythrophrys*.

**Poospiza lateralis lateralis** (Nordmann). BUFF-THROATED WARBLING FINCH.

*Fringilla lateralis* (Natterer MS.) Nordmann, in Erman's Reise um die Erde, Naturhist. Atlas, p. 10, 1835—"Brazil," we suggest Rio de Janeiro (type in Berlin Museum examined).<sup>1</sup>

*Pipillo superciliosa* Swainson, Anim. in Menag., p. 311, Dec. 31, 1837—"near Coritiva, South Brazil," errore (type in coll. of W. Swainson, now in University Museum, Cambridge, Eng., examined).<sup>2</sup>

*Poospiza lateralis* Cabanis, Arch. Naturg., 13, (1), p. 350, 1847; Bonaparte, Consp. Gen. Av., 1, (2), p. 473, 1850—Brazil; Cabanis, Mus. Hein., 1, p. 137, 1851—southern Brazil (crit.); Berlepsch, Zeits. Ges. Orn., 2, p. 123 (note 2), 1885 (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 643, 1888—Brazil; Ihering, Cat. Faun. Braz., 1, p. 384, 1907—Serra do Itatiaya (Campos do Jordão); Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 358, 1909—Serra do Itatiaya; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Caminho do Couto and Morro Redondo, Serra do Itatiaya; Holt, Bull. Amer. Mus. N. H., 57, p. 317, 1928—Serra do Itatiaya, São Paulo.

*Range*.—Southeastern Brazil, in State of Rio de Janeiro and the adjoining section of São Paulo (Serra do Itatiaya).<sup>3</sup>

**\*Poospiza lateralis cabanisi** Bonaparte.<sup>4</sup> CABANIS'S WARBLING FINCH.

*Poospiza cabanisi* Bonaparte, Consp. Gen. Av., 1, (2), p. 473, end of 1850—"Paraguay"—Bonpland, Misiones, Argentina (type in Paris Museum examined); Ihering, Cat. Faun. Braz., 1, p. 384, 1907—São Paulo (Itararé) and Rio Grande do Sul (Nova Hamburgo); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 392, 1910—Misiones and Buenos Aires (Tigré, San

<sup>1</sup> The other specimens collected by "Deppe" [lege Sellow] at San Miguel (Uruguay) and São Luiz (Rio Grande do Sul), which are incidentally mentioned by Nordmann, pertain to *P. l. cabanisi*. Natterer's manuscript name, though originally bestowed upon examples of the latter form, remained unpublished until it was used in print by Nordmann for the northern race.

<sup>2</sup> Swainson's type is a typical "Rio" skin, agreeing with individuals from Rio de Janeiro and others from the Serra do Itatiaya in deep buff throat, restricted white abdominal area, long white tips to the lateral rectrices, absence of the white postocular streak, etc. The locality "Coritiva" [= Curytiba, Paraná] was probably given on the authority of Natterer, who collected at that place a series of *P. l. cabanisi* believed to be the same as Swainson's bird.

<sup>3</sup> *Material examined*.—Brazil: Rio de Janeiro, 4; Campos do Jordão, Serra do Itatiaya, São Paulo, 3.

<sup>4</sup> *Poospiza lateralis cabanisi* Bonaparte differs from the nominate race by much more brownish (often reddish brown) back; somewhat lighter rufous rump; much paler buffy throat and foreneck, the latter suffused with grayish; much more extensive white abdominal area; much shorter white tips to the lateral rectrices; and by having the white supraloral streak protracted into a very conspicuous superciliary stripe continued to the sides of the neck.

Birds from extreme southern São Paulo (Itararé), Paraná, Rio Grande do Sul, Entre Ríos, and Buenos Aires agree well together. As we have shown in another place (Nov. Zool., 20, p. 238, 1918), Bonaparte's name *P. cabanisi* refers

Isidro); Hellmayr, Nov. Zool., 20, p. 230, 1913—"Paraguay" (crit. on type); Pereyra, El Hornero, 3, p. 172, 1923—San Isidro, Buenos Aires (July).

*Poospiza assimilis* Cabanis, Mus. Hein., 1, p. 137, October, 1851—southern Brazil and Paraguay (type in Berlin Museum); White, Proc. Zool. Soc. Lond., 1882, p. 599—Concepción, Misiones; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 123, 1885—Taquara and Arroyo Grande, Rio Grande do Sul (descr. of young); Selater and Hudson, Arg. Orn., 1, p. 51, 1888—Concepción, Misiones; Sharpe, Cat. Bds. Brit. Mus., 12, p. 644, 1888—Concepción, Misiones; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 121, 1899—Mundo Novo, Pedras Brancas, and São Lourenço, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 166, 1899—São Paulo; Wetmore, Bull. U. S. Nat. Mus., 133, p. 422, 1926—Uruguay (San Vicente, Lazcano, Rio Negro); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 190, 1926—Fazenda Firmiano, Paraná; Tremoleras, El Hornero, 4, p. 19, 1927—Uruguay (San Vicente, Rio Negro).

*Paospiza lateralis* (not *Fringilla lateralis* Nordmann) Burmeister, Syst. Uebers. Th. Bras., 3, p. 215, 1856—part, descr. and hab., São Paulo and Santa Catharina.

*Poospiza lateralis* Pelzeln, Orn. Bras., 3, p. 228, 1870—Boqueirão (Castro), Campo Largo, Campo Comprido, and Curytiba, Paraná (spec. examined); Barrows, Bull. Nutt. Orn. Cl., 8, p. 130, 1883—Concepción del Uruguay, Entre Ríos; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 489, 500, 1912—Vera Guarany, Paraná.

*Poospiza lateralis assimilis* Hartert and Venturi, Nov. Zool., 16, p. 179, 1909—Buenos Aires (Tigré and Barracas al Sud).

*Poospiza lateralis cabanisi* Dabbene, Anal. Mus. Nac. Buenos Aires, 23, p. 364, 1912—Paso Yuvay, near Villa Rica, Paraguay; Bertoni, Faun. Parag., p. 64, 1914—Paraguay; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 660, 1923—San Isidro, Buenos Aires; Pereyra, El Hornero, 5, p. 218, 1933—Isla del Arroyo Correa, Buenos Aires (nest).

*Range*.—Southeastern Brazil, from southern São Paulo (Itararé) to Rio Grande do Sul; Paraguay; Uruguay; northeastern Argentina, in provinces of Misiones (Concepción, Bonpland), Entre Ríos (Concepción del Uruguay; La Soledad), and Buenos Aires (Tigré; San Isidro; Barracas al Sud; Arroyo Correa).

3: Uruguay (Rio Uruguay, Soriano, 1; Quebrada de los Cuervos, Treinta y Tres, 1; Arazati, San José, 1).

to the bird commonly known as *P. assimilis*. We have since learned that the type came from Bonpland, Misiones, where it had been collected by Aimé Bonpland, the famous botanist, who accompanied Alexander von Humboldt on his travels through South America and subsequently settled in Argentina.

*Additional material examined*.—Brazil: Itararé, São Paulo, 2; Roça Nova, Serra do Mar, Paraná, 4; Curytiba, Paraná, 7; Campo Largo, Paraná, 1; Campo Comprido, Paraná, 1; Taquara do Mundo Novo, Rio Grande do Sul, 4; São Lourenço, Rio Grande do Sul, 1; Rio Grande do Sul, 4.—Argentina: Bonpland, Misiones, 1; La Soledad, Entre Ríos, 1; Tigré, Buenos Aires, 1; Barracas al Sud, Buenos Aires, 1.

Genus **POOSPIZOPSIS** Berlepsch<sup>1</sup>

*Poospizopsis* Berlepsch, Ibis, (6), 5, p. 208 (note), 1893—type, by orig. desig.,  
*Poospiza caesar* Selater and Salvin.

\***Poospizopsis caesar** (Selater and Salvin). SLATE-CROWNED SPARROW.

*Poospiza caesar* Selater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 152, pl. 13—Tinta, Dept. Cuzco, Peru (type in coll. of P. L. Selater, now in British Museum); Selater, l.c., 1873, p. 780—Paucartambo, Dept. Cuzco, Peru; Taczanowski, Orn. Pér., 3, p. 32, 1886—Paucartambo; Sharpe, Cat. Bds. Brit. Mus., 12, p. 635, 1886—Paucartambo and Tinta; Berlepsch and Stolzmann, Ornith., 13, pp. 103, 112, 126, 1906—Curahuasi (Cuzco), Rio Cadena (Huaynapata), and Checacupe (Puno), Peru.

*Poospizopsis caesar* Chapman, Bull. U. S. Nat. Mus., 117, p. 111, 1921—Ollantaytambo, Chospiyoc, Huaracundo Canyon, Poquiura, Pisac, Calca, Cuzco, and La Raya, Dept. Cuzco, Peru.

*Range*.—Temperate zone of southeastern Peru, in Dept. of Cuzco and the adjoining districts of Puno.<sup>2</sup>

1: Peru (La Raya, 1).

Genus **COMPOSPIZA** Berlepsch<sup>3</sup>

*Compospiza* Berlepsch, Ibis, (6), 5, p. 207, 1893—type, by monotypy, *Compospiza garleppi* Berlepsch.

**Compospiza garleppi** Berlepsch.<sup>4</sup> GARLEPP'S MOUNTAIN FINCH.

*Compospiza garleppi* Berlepsch, Ibis, (6), 5, p. 208, pl. 6, 1893—Vacas, Dept. Cochabamba, Bolivia (type in coll. of H. von Berlepsch, now in Senckenberg Museum, Frankfurt, examined).

*Range*.—Puna zone of central Bolivia (Vacas, Dept. Cochabamba).

\***Compospiza baeri** (Oustalet).<sup>5</sup> BAER'S MOUNTAIN FINCH.

*Buarremon baeri* Oustalet, Bull. Mus. Hist. Nat. Paris, 10, p. 43, 1904—Lagunita, Prov. Tucumán, Argentina (type in Paris Museum examined);

<sup>1</sup> Genus *Poospizopsis* Berlepsch: Similar to *Poospiza*, but with proportionately much heavier bill, tarsi, and feet.

<sup>2</sup> *Additional specimens examined*.—Peru, Cuzco: Anta, 2; Urcos, 2; Urubamba Valley (alt. 10,000 ft.), 3.

<sup>3</sup> Genus *Compospiza* Berlepsch: Agreeing with *Poospizopsis* in large, heavy feet, but immediately distinguished by much smaller, slenderer bill, and very different style of coloration.

<sup>4</sup> *Compospiza garleppi* Berlepsch is remarkable for its peculiar coloration, the anterior crown, a spot below the eye, and the entire under parts being bright orange-rufous. The species is well described by Berlepsch, although it should be noted that the colored plate gives rather a wrong impression of the bird's appearance, the rufous portions of the plumage being much too orange. The unsexed type, the only specimen we have seen, measures as follows: wing, 89; tail, 86; bill, 12½.

<sup>5</sup> *Compospiza baeri* (Oustalet): Similar to *C. garleppi* in the distribution of the orange-rufous color on the head, as well as in shape of bill and form of wings and

Baer, Ornith., 12, p. 216, 1904—Lagunita; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 42, 1905—La Lagunita (alt. 3,000 metr.) and Tafi (alt. 2,300 metr.), Tucumán.

*Compsospiza baeri* Hellmayr, Nov. Zool., 13, p. 309, 1906—Lagunita (crit.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 393, 1910—Lagunita and Tafi, Tucumán; Dinelli, El Hornero, 1, p. 64, 1918—Sierra de Tucumán.

*Range*.—Puna zone of northwestern Argentina (La Lagunita, Tafi, Aconquija, and Las Pavas, Sierra of Tucumán).

5: Argentina (Las Pavas, 1; Aconquija, 4).

### Genus SALTATRICULA Burmeister

*Saltatricula* Burmeister, Reise La Plata Staaten, 2, p. 481, 1861—type, by orig. desig., *Saltator multicolor* Burmeister.

*Saltatricula* Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—emendation.

### \**Saltatricula multicolor* (Burmeister). MANY-COLORED GROUND SPARROW.

*Saltator multicolor* Burmeister, Journ. Orn., 8, p. 254, 1860—Paraná, Entre Ríos, Argentina (type in Halle Museum examined); Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; Cabanis, Journ. Orn., 26, p. 195, 1878—Sierra de Córdoba.

*Saltatricula multicolor* Burmeister, Reise La Plata St., 2, p. 481, 1861—near Paraná, Entre Ríos; Salvin, Ibis, 1880, p. 355—Salta and near Mendoza; White, Proc. Zool. Soc. Lond., 1882, p. 600—Fuerte de Andalgalá, Catamarca; Sharpe, Cat. Bds. Brit. Mus., 12, p. 737, 1888—Argentina (Salta; Cosquin, Córdoba; Mendoza); Selater and Hudson, Arg. Orn., 1, p. 61, pl. 5, 1888—Paraná, Catamarca (Fuerte de Andalgalá), Salta, and Mendoza; Holland, Ibis, 1895, p. 215—Santa Elena, Entre Ríos; Koslowsky, Rev. Mus. La Plata, 6, pp. 279, 290, 1895—La Rioja (Chilecito) and Catamarca; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 7, 1895—Santa Rosa, Salta; idem, l.c., 12, No. 292, p. 10, 1897—Caiza, Bolivian Chaco, and San Lorenzo, Jujuy; Gosse, in Fitzgerald, The Highest Andes, p. 352, 1899—Lujan and Mendoza; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 179, 1902—Tapia, Tucumán; Baer, Ornith., 12, p. 217, 1904—Tapia, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Orán, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 44, 1905—Tapia and Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 393, 1910 (range in Argentina); Dinelli, El Hornero, 1, p. 64, 1918—Tucumán, Salta, Jujuy,

tail, but much smaller; the orange-rufous on the under parts is restricted to throat, foreneck, and tail coverts, the remainder being pale slate gray shaded with olive along the sides; the gray of the dorsal surface is paler; the edge of the wing gray instead of orange; the two lateral pairs of rectrices lack the white apical edges, etc. Wing (males), 75–78; tail, 73–75; bill, 13–14.

This is probably a geographic representative of *C. garleppi*, but until more is known about the latter bird, it may provisionally be maintained as a distinct species.

*Additional material examined*.—Tucumán: Lagunita, 4.

and Santiago del Estero (nest and eggs descr.); Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos (nest and eggs); Giacomelli, l.c., 3, p. 69, 1923—La Rioja; Wetmore, Bull. U. S. Nat. Mus., 133, p. 423, 1926—Paraguay (Laguna Wall, 200 kilom. west of Puerto Pinasco) and Tucumán (Tapia); Friedmann, Bull. Mus. Comp. Zool., 68, p. 235, 1927—Santa Elena, Entre Ríos; Smyth, El Hornero, 4, p. 145, 1928—Santa Elena (eggs descr.); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 256, 1930—Chaves, Formosa, and Villa Montes (Tarija), Bolivia (crit.); idem, Verh. Orn. Ges. Bay., 20, p. 328, 1934—Estancia La Geraldina, northern Santa Fé, and Chaco Paraguayo (Puerto Casado, Puerto Sastre) (crit.).

*Saltatricula multicolor* Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—Córdoba.

*Range*.—Northern Argentina, from Entre Ríos (Paraná; Santa Elena) and southern Corrientes (Rio Guayquiraro) west to Mendoza and north to Jujuy, and the adjacent sections of western Paraguay (Puerto Casado, Puerto Sastre, and Laguna Wall, Paraguayan Chaco) and southeastern Bolivia (Caiza and Villa Montes, Tarija).<sup>1</sup>

2: Argentina (Concepción, Tucumán, 1; Chumbicha, Catamarca, 1).

### Genus EMBERNAGRA Lesson

*Embernagra* Lesson, Traité d'Orn., p. 465, 1831—type, by virtual monotypy, *Tanagra dumetorum* Lesson=*Emberiza platensis* Gmelin.

*Limnospiza* Cabanis, Mus. Hein., 1, p. 136, October, 1851—new name for *Embernagra* Lesson.

### \**Embernagra platensis platensis* (Gmelin). LA PLATA GROUND FINCH.

*Emberiza platensis* Gmelin, Syst. Nat., 1, (2), p. 886, 1789—based on "L'Emberise à cinq couleurs" Montbeillard, in Buffon, Hist. Nat. Ois., 4, p. 364; Buenos Aires.

(?)*Tanagra dumetorum* Lesson, Traité d'Orn., p. 465, 1831—Brazil (cotypes in Paris Museum examined).

*Emberizoides poliocephalus* Gray, in Darwin, Zool. Beagle, 3, Birds, p. 98, March, 1841—Montevideo and Maldonado, Uruguay (type, from Maldonado, now in British Museum, examined); Bonaparte, Consp. Gen. Av., 1, (2), p. 483, 1850—La Plata (ex Gray).

*Emberizoides megarhyncha* Bonaparte, Consp. Gen. Av., 1, (2), p. 482, end of 1850—Brazil (type in Paris Museum examined;<sup>2</sup> descr. of young).

<sup>1</sup> I am unable to make out any other than seasonal variation in this bird. Paraguayan and Bolivian specimens appear to agree with others from Argentina.

*Additional material examined*.—Bolivia, Tarija: Villa Montes, upper Pilcomayo, 4.—Paraguay: Chaco (Puerto Casado, Puerto Sastre), 3.—Argentina: Paraná, 1 (the type); Chaves, Formosa, 1; Corral, Santiago del Estero, 1; Arenal, Salta, 1.

<sup>2</sup> The type collected in "Brazil" by Auguste de Saint-Hilaire and received at the Paris Museum in August, 1822, is quite a young bird in fluffy juvenile plumage



*Embernagra viridis* Bonaparte, Cons. Gen. Av., 1, (2), p. 483, 1850—La Plata (type in Paris Museum).<sup>1</sup>

*Limnospiza minor* Cabanis, Mus. Hein., 1, p. 136, October, 1851—"Brazil" (type in Heine Collection, now in Municipal Museum, Halberstadt, examined).

*Embernagra platensis* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 34, 1837—"Paraguay" and banks of the La Plata; d'Orbigny, Voy. Amér. Mérid., Ois., p. 284, 1839—Uruguay (Montevideo), Buenos Aires, Santa Fé, Entre Ríos, Corrientes, and Patagonia (Rio Negro); Bonaparte, Cons. Gen. Av., 1, (2), p. 483, 1850—southern Brazil and Paraguay; Burmeister, Syst. Uebers. Th. Bras., 3, p. 224, 1856—Rio Grande do Sul, Montevideo, Paraguay, and La Plata; idem, Journ. Orn., 8, p. 256, 1860—near Paraná, Entre Ríos; idem, Reise La Plata St., 2, p. 485, 1861—near Paraná (eggs descr.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 140—Conchitas, Buenos Aires; Pelzeln, Orn. Bras., 3, p. 230, 1870—Paraná (Postinho, Porcos de Riva, São Luiz, Curytiba); Sclater, Proc. Zool. Soc. Lond., 1872, p. 548—Rio Negro, Patagonia; Doering, Period. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; Durnford, Ibis, 1877, p. 172—Buenos Aires and up the Paraná to Baradero; Doering, Inf. Of. Exp. Rio Negro, p. 40, 1881—Pampa Territory and Valley of the Rio Negro; White, Proc. Zool. Soc. Lond., 1882, p. 600—Buenos Aires (Punta Lara, Rio Lujan) and Corrientes (Santo Tomé); Barrows, Bull. Nutt. Orn. Cl., 8, p. 132, 1883—Concepción del Uruguay, Entre Ríos, and Azúl, Buenos Aires (nest and eggs descr.); Gibson, Ibis, 1885, p. 278—Paysandú, Uruguay (breeding); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 124, 1885—Taquara, Rio Grande do Sul; Sharpe, Cat. Bds. Brit. Mus., 12, p. 758, 1888—Uruguay (Montevideo, Maldonado), Buenos Aires (Conchitas, Buenos Aires), and Entre Ríos (Paraná); Withington, Ibis, 1888, p. 463—Lomas de Zamora, Buenos Aires; Sclater and Hudson, Arg. Orn., 1, p. 62, 1888—Argentina (habits); Dalgleish, Proc. Roy. Phys. Soc. Edinb., 10, p. 77, 1889—Estancia Ytañú, Paraguay (eggs descr.); Holland, Ibis, 1890, p. 425—Est. Espar-

with only a few newly growing feathers interspersed on the back and lesser upper wing coverts. The large stout bill and the strong legs with long toes leave not the slightest doubt about its proper identification. The new wing coverts are of the same yellowish green tone as in specimens from Buenos Aires, and the anal region as well as the crissum show the characteristic buffy color. Crown and back are dull brownish (excepting a number of fresh feathers which are greenish as in adult birds) with heavy blackish brown spots; the median and greater wing coverts brown with buffy white edges; throat, breast, and abdomen whitish, the foreneck, breast and sides streaked with (reddish) brown; maxilla blackish brown with the cutting edges yellowish brown, mandible wholly yellowish white. Wing, 81; tail, 84; bill, 17½.

<sup>1</sup> Though ostensibly based on *Tanagra fabialatu* Lesson (Traité d'Orn., p. 465, 1831), *Embernagra viridis* Bonaparte, credited to "Gray, ex Vieillot" (i.e., Gray, List Gen. Subgen. Bds., 2nd ed., p. 57, 1841) is practically the first valid introduction of that specific name, since neither Lesson nor Gray gave any description. I have not been able to find the specimen in the Paris Museum. Pucheran (Arch. Mus. Hist. Nat., 7, p. 344, 1855), in speaking of *Tanagra fabialatu* Lesson, claims that "the type" came from Brazil (Auguste de Saint-Hilaire, 1818), but as the only locality cited by Bonaparte is "La Plata," a region that was not visited by Saint-Hilaire, I believe he had some other individual in mind, possibly one of the cotypes of *T. dumetorum*.

tillar, Buenos Aires; Kerr, Ibis, 1892, p. 126—lower Pilcomayo; Holland, Ibis, 1892, p. 197—Est. Espartillar, Buenos Aires (breeding); Aplin, Ibis, 1894, p. 170—Uruguay; Holland, Ibis, 1895, p. 215—Santa Elena, Entre Ríos; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 7, 1895—Villa Rica and Chaco Austral, Paraguay; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 121, 1899—Mundo Novo, Rio Grande do Sul; Oberholser, Proc. U. S. Nat. Mus., 25, p. 145, 1902—Sapucay, Paraguay; Ihering, Rev. Mus. Paul., 5, p. 268, 1902—Vargem Alegre, Minas Geraes; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 185, 1906—Retiro do Ramos, Itatiaya; Ihering, Cat. Faun. Braz., 1, p. 385, 1907—Vargem Alegre, Minas Geraes, and Esperanza, Buenos Aires (range); Hartert and Venturi, Nov. Zool., 16, p. 179, 1909—Ocampo, Santa Fé, and Barracas al Sud, Buenos Aires; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 394, 1910 (range in Argentina); Chubb, Ibis, 1910, p. 641—Sapucay, Paraguay; Grant, Ibis, 1911, p. 100—Formosa (Colonia Mihanovitch), Paraguay (Villa Pilar), Corrientes (Bellavista), and Buenos Aires (Los Yngleses, Ajó; Tuja, Ajó; Cape San Antonio); Dabbene, Anal. Mus. Nac. Buenos Aires, 23, p. 366, 1912—Villa Rica, Paraguay; Bertoni, Faun. Parag., p. 64, 1914—Paraguay (Mondah, Encarnación); Hussey, Auk, 33, p. 398, 1916—La Plata; Gibson, Ibis, 1918, p. 387—Cape San Antonio, Buenos Aires (nest and eggs descr.); Daguerre, El Hornero, 2, p. 271, 1922—Rosas, Buenos Aires; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Serra do Itatiaya, São Paulo; Wetmore, Bull. U. S. Nat. Mus., 133, p. 425, 1926—Chaco (Resistencia, Las Palmas), Formosa (Riacho Pilaga, Formosa), Paraguay (west of Puerto Pinasco), Rio Negro (General Roca), Buenos Aires (Dolores, Lavalle, Carhue, Guaminí), and Uruguay (Carrasco, San Vicente, Lazcano, Rio Negro) (crit., habits); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 190, 1926—Fazenda Concordia, Paraná; Wilson, El Hornero, 3, p. 362, 1926—General López, Santa Fé; Smyth, l.c., 4, p. 149, 1928—Cacharí, F.C.S. (eggs descr.); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 260, 1930—San José, Lapango, and Tapikiolé, Formosa (crit.); Marelli, El Hornero, 5, p. 199, 1933—Napotá, Buenos Aires; Laubmann, Verh. Orn. Ges. Bay., 20, p. 328, 1934—La Geraldina, Santa Fé.

*Limnospiza platensis* Cabanis, Mus. Hein., 1, p. 136, 1851—Rio Grande [do Sul].

*Embernagra platensis platensis* Chubb, Ibis, 1918, p. 3—eastern Argentina (crit.); Hellmayr, Nov. Zool., 32, p. 1, 1925—Patagonia (=Rio Negro) (crit.).

*Embernagra platensis poliocephala* Chubb, Ibis, 1918, p. 4—Maldonado, Montevideo, and Santa Elena, Uruguay (crit.); Dabbene, El Hornero, 1, p. 245, 1919—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 23, 1920—Uruguay (Montevideo, Maldonado, Flores, San José); Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 172, 1923—Zelaya, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 660, 1924—Prov. Buenos Aires.

*Embernagra platensis paraguayensis* Chubb, Ibis, 1918, p. 5—Paraguay and Rio Paraná, Argentina (type, from Sapucay, Paraguay, in British Museum examined); Hellmayr, Nov. Zool., 32, p. 1, 1925—Corrientes (crit.).

(?) *Embernagra dumetorum* Chubb, Ibis, 1918, p. 6—"Brazil" (crit.).

*Embernagra platensis* subsp. Holt, Bull. Amer. Mus. N. H., 57, p. 318, 1928—campos of Alto Itatiaia, São Paulo.

*Embernagra olivascens olivascens* (not of d'Orbigny) Friedmann, Bull. Mus. Comp. Zool., 68, p. 236, 1927—part, Bovril Islands, Santa Fé.

*Range*.—Southeastern Brazil, from southern Minas Geraes (Campanha, Vargem Alegre, near Marianna) and São Paulo (Serra do Itatiaia) to Rio Grande do Sul; Uruguay; Paraguay; eastern Argentina, from Formosa and Corrientes south through Chaco, Santa Fé,<sup>1</sup> and Entre Ríos to southern Buenos Aires (lower Rio Negro).<sup>2</sup>

<sup>1</sup> The record from Córdoba by Frenzel (Journ. Orn., 39, p. 120, 1891) is doubtless erroneous.

<sup>2</sup> Careful study of an extensive series from the entire range fails to disclose any variation connected with particular geographic areas. *E. p. poliocephala*, from Uruguay, in any case is absolutely identical with birds from Buenos Aires (topotypical *platensis*). Two of the specimens in the British Museum are indeed darker gray on throat and foreneck, and nearly white along the abdominal line, peculiarities which are no doubt due to their worn condition, since birds in corresponding plumage from Buenos Aires, e.g. a male from Tuja, Ajó, Nov. 27, 1908, and others from Rio Grande do Sul are of identical coloration. An adult female in fresh plumage collected by O. V. Aplin on March 14, 1893, at Santa Elena, Uruguay, again is precisely like comparable specimens from Buenos Aires, being just as buffy beneath with pale gray throat and foreneck. Birds from Paraguay and the adjoining parts of Argentina (Paraná; Corrientes), which have been separated by Chubb as *E. p. paraguayensis*, are neither larger nor "darker green" above, and not more than Wetmore am I able to discriminate this form on any other character. The type of *Limnospiza minor* Cabanis, which I have been permitted to examine through the good offices of Mr. A. Hemprich, is an (unsexed) adult bird in excessively poor plumage with the tips of quills and rectrices worn off, a condition that explains its supposedly small size (wing, 84; tail, 77). The bill, while slightly slenderer, is by no means shorter than in other individuals from southern Brazil (Paraná to Rio Grande do Sul), and quite normally colored. The upper parts are light olive green with broad blackish streaks, exactly as in the average of Brazilian birds, with no trace of buff in the supraloral region or below the eye. It certainly pertains to the South Brazilian form, which I cannot distinguish from typical *platensis*.

The only name I am a little doubtful about is *Tanagra dumetorum* of Lesson. An adult bird from Minas Geraes (Campanha) in perfect plumage differs from all others in comparable condition by fresher (brighter) olive green upper parts with but a few criniform dusky streaks on the middle back. The specimen from "Brazil" described by Chubb is quite similar. The Paris Museum has two mounted birds collected by Auguste de Saint-Hilaire in "Brazil" and received in August, 1818, supposed to be *T. dumetorum*. They present some variations *inter se*, whereby the nomenclatorial side is somewhat complicated. One, which is labeled "*Tanagra dumetorum* Cuv. Type," has the back bright greenish like the Campanha bird, but with numerous, well defined blackish markings; while the other, inscribed "*Tanagra dumetorum* Cuv. et Less. Type," shows merely a few isolated dusky streaks on a rather more brownish-olive ground, which, in tone, does not differ from ordinary *platensis*. It is hard to determine from such a small number of specimens in a notoriously variable species whether a recognizable race may yet exist in the northern parts of southeastern Brazil, and for the present I have listed *T. dumetorum* as a questionable synonym.

*Additional material examined*.—Brazil: Campanha, Minas Geraes, 1; Curitiba, Paraná, 3; São Luiz, Paraná, 1; Postinho, Paraná, 3; Porto União, Santa Catharina, 1; Taquara, Rio Grande do Sul, 2; São Lourenço, Rio Grande do Sul,

16: Uruguay (8 miles southwest of Treinta y Tres, 1; north of San Vicente de Castillos, Dept. Rocha, 4; Maldonado, 2; Arazati, Dept. San José, 3; south of La Lata, Dept. Colonia, 3); Argentina (Platanas, Prov. Buenos Aires, 1; Torrecita, Prov. Buenos Aires, 1; near Guaminí, Prov. Buenos Aires, 1).

**\*Embernagra platensis olivascens d'Orbigny.<sup>1</sup> OLIVE GROUND FINCH.**

*Embernagra olivascens* d'Orbigny, Voy. Amér. Mérid., Ois., p. 285, 1839—Enquisivi (Sicasica), Palca (Ayupaya), and Cochabamba, Bolivia (cotypes, from Sicasica and Ayupaya, in Paris Museum, examined); Bonaparte, Consp. Gen. Av., 1, (2), p. 483, 1850—Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 606—Tilotilo, Yungas, and d'Orbigny localities, Bolivia; Salvin, Ibis, 1880, p. 355—northwestern Argentina; Sharpe, Cat. Bds. Brit. Mus., 12, p. 759, 1888—part, spec. a, h, i, Tilotilo (Bolivia) and Cosquin (Córdoba); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 398, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 120, 1891—Sierra of Córdoba; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 10, 1897—Tala, Salta; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 179, 1902—Tucumán; Lönnberg, Ibis, 1903, p. 456—San Luis, Tarija, Bolivia; Baer, Ornith., 12, p. 217, 1904—Santa [Ana] and Tapia, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 258, 1904—Orán, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 44, 1905—Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 180, 1909—Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 394, 1910—part, Córdoba, Tucumán, and Salta; Chubb, Ibis, 1918, p. 8—Bolivia and northwestern Argentina (monog.); Dinelli, El Hornero, 1, p. 65, 1918—Tucumán (nest and eggs descr.); Giacomelli, l.c., 3, p. 69, 1923—La Rioja; Hellmayr, Nov. Zool., 32, p. 1, 1925—Sicasica and Ayupaya (notes on cotypes); Castellanos, El Hornero, 5, p. 325, 1934—Sierra Chica, Córdoba.

*Embernagra olivascens olivascens* Wetmore, Bull. U. S. Nat. Mus., 133, p. 426, 1926—Tapia and Tucumán, Tucumán; Friedmann, Bull. Mus. Comp. Zool., 68, p. 236, 1927—part, Concepción, Tucumán.

3; Camaquã, Rio Grande do Sul, 1; unspecified, 5.—Uruguay: Maldonado, 2; Santa Elena, Soriano, 2.—Paraguay: Sapucay, 4; Villa Rica, 1; Mborero, 1; Bernalcué, 1.—Argentina: Santo Tomé, Corrientes, 1; Bella Vista, Corrientes, 1; Corrientes, 1; Santa Elena, Entre Ríos, 1; Paraná, Entre Ríos, 1; lower Pilcomayo, Formosa, 1; Colonia Mihanovitch, Formosa, 1; Buenos Aires, 8; Rio Negro, 1.

<sup>1</sup> *Embernagra platensis olivascens* d'Orbigny differs from the nominate race by lacking all trace of dusky streaks on the pileum and by the reduction of the dusky color of the bill to a limited pale brown culminal stripe or spot. Besides, the loreal region and the chin are less dusky, while the middle of the abdomen is always nearly white. The back, while generally plain, is sometimes faintly streaked with dusky, hardly less so than in the "*dumetorum*" type of *E. p. platensis*, and I cannot see in *olivascens* anything but a well-marked western race.

Argentine birds, including some from Córdoba, are identical with those from Bolivia.

*Additional material examined.*—Bolivia: Sicasica, 1; Palca, Ayupaya, 1; Tilotilo, 1; Santa Ana, 1; El Cabrada, Chuquisaca, 1.—Argentina: Tala, Salta, 2; Tucumán, 7; Cosquin, Córdoba, 5.

*Range*.—Subtropical zone of Bolivia and northwestern Argentina south to La Rioja and Córdoba.<sup>1</sup>

6: Argentina (Concepción, Tucumán, 6).

**Embernagra platensis gossei** Chubb.<sup>2</sup> GOSSE'S GROUND FINCH.

*Embernagra gossei* Chubb, Ibis, (10), 6, p. 9, pl. 1, fig. 2, 1918—Lujan, Mendoza, Argentina (type in British Museum examined).

*Embernagra viridis* (not of Bonaparte) Burmeister, Journ. Orn., 8, p. 256, 1860—Mendoza.

*Embernagra olivascens* (not of d'Orbigny) Burmeister, Reise La Plata St., 2, p. 485, 1861—Mendoza (crit.); Sharpe, Cat. Bds. Brit. Mus., 12, p. 759, 1888—part, spec. b-g, Mendoza; Selater and Hudson, Arg. Orn., 1, p. 63, 1888—near Mendoza [and "Rio Colorado" (ex Doering)]; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 394, 1910—part, Mendoza [and "Pampas" (ex Doering)]; Sanzin, El Hornero, 1, p. 152, 1918—Las Catitas, Mendoza.

*Embernagra olivascens gossei* Wetmore, Bull. U. S. Nat. Mus., 133, p. 427, 1926—Tunuyán, Mendoza (crit.); Pereyra, El Hornero, 4, p. 33, 1927—San Rafael, Mendoza.

*Range*.—Western Argentina (Province of Mendoza).

**Embernagra longicauda** Strickland.<sup>3</sup> BUFF-THROATED GROUND FINCH.

<sup>1</sup> Records of *E. olivascens* from the province of Buenos Aires (Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 40, 1881—Laguna Carhue to the Rio Colorado; Withington, Ibis, 1888, p. 463—Lomas de Zamora; no spec. preserved) are almost certainly due to misidentification of worn breeding specimens of *E. p. platensis*.

<sup>2</sup> *Embernagra platensis gossei* Chubb: Similar in size as well as in coloration of bill and plumage to *E. p. olivascens*, but the upper parts somewhat duller, more grayish green. Wing (type), 95; tail, 103; bill, 17.

The type, the only available specimen in good plumage, is indeed grayer above than any of the numerous individuals of *E. p. olivascens* with which it was compared. The coloration of the under parts, however, does not offer any constant difference from several examples in the series of the allied form. Seven additional skins from Mendoza are so excessively worn as to be useless for comparative purposes.

<sup>3</sup> *Embernagra longicauda* Strickland, known only from the type, is a very singular bird with very short wings and large bill. I am unable to identify it with any other species. It combines the bill-coloration of *E. p. platensis* with the plain olive green dorsal plumage of *E. p. olivascens*, but differs from both by possessing a very conspicuous, deep buff supraloral streak, extending apparently (the sides of the head are somewhat defective) in the form of a narrow supercilium to above the posterior margin of the auriculars, and a similarly colored subocular spot. Moreover, the middle of the throat and foreneck is dingy buff (very different from the dull gray of the related species), the chest soiled gray with a faint buffy tinge; the rest of the under parts are brighter buff, the flanks and crissum, however, light buffy brown, as in *platensis* and *olivascens*. The bill is considerably larger than in *platensis*. The extent of the dusky color on the maxilla is the same, but the light-colored margin along the basal portion of the commissure, being pale brown instead of bright yellow, is much less prominent. Wing, 78; tail, 98; bill, 18.

The mode of preparation of the type specimen offers no clew as to its origin. It was presented to the describer by his brother, N. C. Strickland, in 1838.

*Embernagra longicauda* Strickland, Ann. Mag. Nat. Hist., 13, p. 420, June, 1844—"South American" (type in coll. of H. E. Strickland, now in University Museum, Cambridge, Eng., examined); Bonaparte, Consp. Gen. Av., 1, (2), p. 483, 1850 (ex Strickland); Chubb, Ibis, 1918, p. 7, pl. 1, fig. 1 (crit.).

*Limnospiza longicauda* Cabanis, Mus. Hein., 1, p. 136, 1851.

Range.—"South America."

### Genus RHYNCHOPHANES Baird

*Rhynchophanes* Baird, in Baird, Brewer, and Lawrence, Rep. Expl. & Surv. R. R. Pacif., 9, p. 432, 1858—type, by monotypy, *Plectrophanes mccownii* Lawrence.

#### \**Rhynchophanes mccownii* (Lawrence). MCCOWN'S LONGSPUR.

*Plectrophanes mccownii* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 5, p. 122, Sept., 1851—high prairies of western Texas (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Cassin, Illust. Bds. Calif., Tex., etc., p. 228, pl. 39, 1855 (monog.).

*Rhynchophanes maccowni* Sharpe, Cat. Bds. Brit. Mus., 12, p. 589, 1888 (monog.); Salvin and Godman, Ibis, 1889, p. 239—Julines, near Chihuahua City, Chihuahua, Mexico.

*Rhynchophanes mccowni* Allen, Bull. Amer. Mus. N. H., 5, p. 38, 1893—San Diego, Chihuahua.

*Rhynchophanes mccownii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 165, 1901 (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 175, 1906—Villa Ocampo, Durango; van Rossem, Trans. San Diego Soc. N. H., 77, p. 490, 1934—Chihuahua.

Range.—Great Plains of North America, from Alberta and southern Saskatchewan to southeastern Wyoming, northeastern Colorado, northern South Dakota, and southwestern Minnesota; winters from Colorado and Kansas south through Arizona and Texas to Chihuahua and northwestern Durango.

56: Alberta (Burdette, 1); North Dakota (Cannonball River, 3; Carrington, 1); South Dakota (Moody County, 1); Nebraska (unspecified, 1); Montana (Jordan, 4); Colorado (Fort Lyon, 4); Oklahoma (unspecified, 3); Texas (Port Lavaca, 11; Gainesville, 2; Corpus Christi, 1); Arizona (White Mountains, 1); New Mexico (Deming, 19); Mexico (Bustillos, Chihuahua, 3; Chihuahua, Chihuahua, 1).

### Genus CALCARIUS Bechstein

*Calcarius* Bechstein, Orn. Taschenb. Deuts., 1, p. 130, 1802—type, by monotypy, *Fringilla lapponica* Linnaeus.

*Plectrophanes* Meyer, Kurze Beschr. Vögel Liv.- und Esthl., p. xii, 1815—type, by orig. desig., *Fringilla calcarata* Pallas=*Fringilla lapponica* Linnaeus.

*Centrophanes* [sic] Kaup, Skizz. Ent.-Gesch. & Naturl. Syst. Europ. Thierw., p. 158, 1829—type, by monotypy, *Fringilla lapponica* Linnaeus.

*Centrophanes* Gray, App. List Gen. Bds., p. 11, 1842—emendation.

*Leptoplectron* Reichenbach, Av. Syst. Nat., pl. 75, June, 1850—type not specified, but obviously *Emberiza picta* Swainson (as indicated by Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 154, 1901).

**\**Calcarius lapponicus lapponicus* (Linnaeus). LAPLAND  
LONGSPUR.**

*Fringilla lapponica* Linnaeus, Syst. Nat., 10th ed., 1, p. 180, 1758—"in Lapponia"—Lapland.

*Fringilla calcarata* Pallas, Reise Versch. Prov. Russ. Reich., 2, p. 710, 1773—new name for *Fringilla lapponica* Linnaeus.

*Emberiza subcalcarata* Brehm, Isis, 1826, col. 930—Greenland (type probably the same as that of *Plectrophanes groenlandicus* Brehm; cf. Hartert, Nov. Zool., 25, p. 17, footnote,\* 1918).

*Plectrophanes groenlandicus* Brehm, Handb. Naturg. Vög. Deuts., p. 307, 1831—Greenland (type in coll. of C. L. Brehm in Tring Collection, now in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 25, p. 17, 1918).

*Calcarius lapponicus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 579, 1888 (monog.).

*Emberiza lapponica* Winge, Medd. Grønland, 21, p. 297, 1899—Greenland.

*Calcarius lapponicus lapponicus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 155, 1901 (monog., full bibliog.); Hartert, Vög. Pal. Fauna, 1, p. 200, 1904 (monog.).

*Calcarius lapponicus groenlandicus* Schiøler, Danm. Fugle, 2, p. 44, 1926—Greenland (crit.); Nicholson, Ibis, 1930, p. 291—Greenland (habits).

*Calcarius lapponicus subcalcaratus* Salomonsen, Ornith. Monatsber., 39, p. 112, 1931—Greenland (crit.).

**Range.**—Breeds in North America from about lat. 73° on Arctic Islands and in West Greenland, and from lat. 75° in East Greenland south to tree limit in Mackenzie, northern Manitoba, and northern Quebec; also in Lapland, Jan Meyen, Kolguev, Novaya Zemlya, Franz Josef Land, and northern Siberia; winters south to the north-central United States, irregularly to the Middle States and Texas, rarely to Kentucky and South Carolina, also in Europe and Asia south to about lat. 30°.<sup>1</sup>

80: Greenland (Kugssuak, Arctic Circle, 2; Holsteinborg, 1; Disko Island, 2; Angmagsalik, East Coast, 3); Labrador (Indian

<sup>1</sup> I am not quite certain that Greenland birds (*subcalcaratus*) are really quite the same. Their distinctness has been insisted upon by Schiøler and Salomonsen, and the latter author claims that they are separable not only by slightly smaller size, but also by having the nuchal collar as well as the margins to the dorsal plumage paler and less chestnut. The few examples seen by us seem to support this view, but further studies of extensive breeding material from other parts of Arctic America are required for the final solution of the problem.

Harbor, 2; Port Manvers, 3); Michigan (Kalamazoo, 10); Illinois (Woodstock, 3; Barrington, 5; Worth, 4; Chicago, 10; Addison, 3; Momence, 2); Indiana (Liverpool, 1); Wisconsin (Beaver Dam, 25; Babcock, 1); Iowa (Burlington, 2); Texas (Gainesville, 1).

**\**Calcarius lapponicus alascensis* Ridgway. ALASKA LONGSPUR.**

*Calcarius lapponicus alascensis* Ridgway, Auk, 15, p. 320, Oct., 1898—St. Paul Island, Pribilof group, Alaska (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 1, p. 158, 1901 (monog., full bibliog.); Grinnell, Condor, 3, p. 21, 1901—St. George and St. Paul Islands, Pribilof group, and Amagkak, Alaska; idem, Univ. Calif. Pub. Zool., 5, p. 398, 1910—Prince William Sound region, Alaska; Swarth, l.c., 7, p. 84, 1911—Taku River, Alaska; Bent, Smiths. Misc. Coll., 56, No. 32, pp. 20, 29, 1912—Aleutians and St. Paul Island, Bering Sea; Brooks, Bull. Mus. Comp. Zool., 59, p. 408, 1915—Semidi Islands, Alaska, and islands in the Bering Sea (habits); Hersey, Smiths. Misc. Coll., 66, No. 2, p. 30, 1916—St. Michael, Alaska; Preble and McAtee, N. Amer. Faun., 46, p. 94, 1923—Pribilof Islands (breeding, habits); Swarth, Univ. Calif. Pub. Zool., 24, p. 350, 1924—Kispiox Valley, Skeena River, British Columbia; idem, l.c., 30, p. 121, 1930—Carcross, Atlin region, British Columbia; idem, Pacif. Coast Avif., 22, p. 53, 1934—Akutan, Unalaska, and Nunivak Islands, Alaska.

*Range*.—Breeds in northern Alaska, including the Pribilof, Aleutian, Shumagin, and other islands, and east to the mouth of the Mackenzie River; winters south to Oregon, Nevada, Colorado, and Kansas; accidental in California.

15: Bering Sea (St. Paul Island, 1; St. Lawrence Island, 1); Alaska (Canoe Bay, 1; Nome, 1; Cape Lisburne, 1); Kansas (Hamilton, 9); Colorado (Fort Lyon, 1).

**\**Calcarius pictus* (Swainson). PAINTED LONGSPUR.**

*Emberiza (Plectrophanes) picta* Swainson, in Swainson and Richardson, Faun., Bor.-Amer., 2, "1831," p. 250, pl. 49, pub. Feb., 1832—Carlton House, Saskatchewan (type in the Swainson Collection, University Museum, Cambridge, Eng.).

*Plectrophanes smithii* Audubon, Bds. Amer., 8vo ed., 7, p. 336, pl. 487, 1844—near Edwardsville, Madison County, Illinois (type in U. S. National Museum).

*Calcarius pictus* Sharpe, Cat. Bds. Brit. Mus., 12, p. 584, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 160, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 24, p. 350, 1924—Kispiox Valley, Skeena River, northern British Columbia.

*Range*.—Breeds in the Arctic zone of North America on the barren grounds from Mackenzie (Fort Andersen) east to Hudson Bay (Fort Churchill), west to Fort Yukon; winters from Kansas



to Texas, east in migration to Illinois and Indiana; casual in South Carolina and British Columbia (Skeena River region).

19: Illinois (Worth, 8; Momence, 1; Galesburg, 1); Kansas (Greenwood, 2; Hamilton, 4); Texas (Gainesville, 3).

**\**Calcarius ornatus* (Townsend). CHESTNUT-COLLARED LONGSPUR.**

*Plectrophanes ornata* Townsend, Journ. Acad. Nat. Sci. Phila., 7, Part 2, p. 189, pub. Nov. 21, 1837—"the prairies of the Platte"—near the forks of the Platte River, western Nebraska (type in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 14, 1899).

*Plectrophanes melanomus* Baird, in Baird, Cassin, and Lawrence, Rep. Expl. and Surv. R. R. Pacif., 9, p. 436, 1858—"eastern slope of the Rocky Mountains, Mexico, on the tablelands" (type, from Fort Thorne, New Mexico, in U. S. National Museum).

*Calcarius ornatus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 419, 1886—North America to Vera Cruz, Mexico; Sharpe, Cat. Bds. Brit. Mus., 12, p. 586, 1888 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 162, 1901 (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 24, p. 351, 1924—Kispiox Valley, Skeena River, British Columbia (July 8); idem, Proc. Calif. Acad. Sci., (4), 18, p. 324, 1929—south-eastern Arizona (winter visitant); van Rossem, Bull. Mus. Comp. Zool., 77, p. 490, 1934—Chihuahua, Mexico.

**Range.**—Breeds in the Great Plains of North America from Montana, southeastern Alberta, southern Saskatchewan, and Manitoba south to Wyoming, central Kansas, eastern Nebraska, and western Minnesota; winters from Colorado, Nebraska, and Iowa to Arizona, Sonora, Chihuahua, and Vera Cruz, Mexico; accidental in British Columbia (Skeena River region), California, Maine, Massachusetts, New York (Long Island), and Maryland.

26: Saskatchewan (Moose Jaw, Lake Johnston, 1; Quill Lake, 1); North Dakota (Oakes, 4; Jamestown, 1; Carrington, 1; Braddock, 6); Minnesota (Madison, 1); Montana (Jordan, 2); Wisconsin (Madison, 1); Colorado (Fort Lyon, 1; Broadmoor, 1); Kansas (Hamilton, 1); New Mexico (Deming, 1; Fort Union, 2); Texas (Gainesville, 1; Lee County, 1).

**Genus PLECTROPHENAX Stejneger**

*Plectrophanes* (not of Meyer, 1815) Kaup, Skizz. Entw.-Gesch. und Natürl. Syst. Europ. Thierw., p. 138, 1829—type, by monotypy, *Emberiza nivalis* Linnaeus.

*Plectrophenax* Stejneger, Proc. U. S. Nat. Mus., 5, p. 33, June 5, 1882—type, by orig. desig., *Emberiza nivalis* Linnaeus.

**\*Plectrophenax nivalis nivalis** (Linnaeus). EASTERN SNOW BUNTING.

*Emberiza nivalis* Linnaeus, Syst. Nat., 10th ed., 1, p. 176, 1758—"in Alpihus Laponniae, Spitsbergiae ad sinum Hudsonis," Lapland accepted as type locality; Winge, Medd. Grønland, 21, p. 301, 1899—Greenland.

*Emberiza notata* P. L. S. Müller, Natursyst., Suppl., p. 157, 1776—based on "Ortolan de passage" Daubenton, Pl. Enl., pl. 511, fig. 2; Lorraine.<sup>1</sup>

*Emberiza mustelina* Gmelin, Syst. Nat., 1, (2), p. 867, 1789—based on Willoughby, Albin, Pennant, and Latham; northern countries of America, Asia, and Europe.

*Emberiza montana* Gmelin, Syst. Nat., 1, (2), p. 867, 1789—based on Willoughby, Pennant, and Latham; England.

*Emberiza glacialis* Latham, Ind. Orn., 1, p. 398, 1790—new name for *Emberiza mustelina* Gmelin.

*Emberiza subnivalis* Brehm, Isis, 1826, col. 929—Greenland (no type extant, probably the same as that of *Plectrophanes borealis* Brehm; cf. Hartert, Nov. Zool., 25, p. 17, 1918).

*Plectrophanes hiemalis* Brehm, Handb. Naturg. Vögel Deuts., p. 304, 1831—in cold winters in Middle Germany (no type extant).

*Plectrophanes borealis* Brehm, Handb. Naturg. Vög. Deuts., p. 305, 1831—Greenland, probably also Iceland (type, from Greenland, in Brehm Collection at Tring, now in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 25, p. 17, 1918).

*Plectrophenax nivalis* Sharpe, Cat. Bds. Brit. Mus., 12, p. 572, 1888 (monog.); Salomonsen, Ornith. Monatsber., 39, p. 113, 1931—Greenland (crit.).

*Passerina nivalis nivalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 148, 1901 (monog., full bibliog.); Hartert, Vög. Pal. Fauna, 1, p. 202, 1904 (monog.).

*Plectrophenax nivalis subnivalis* Schiøler, Danm. Fugle, 2, p. 44, 1926—Greenland (crit.); Nicholson, Ibis, 1930, p. 296—Gothaab, Greenland (crit., habits); Salomonsen, Ibis, 1931, p. 59—Greenland (monog.).

*Plectrophenax nivalis nivalis* Salomonsen, Ibis, 1931, p. 67 (monog.).

**Range.**—Breeds in North America in the Arctic zone from at least lat. 83° North (including Greenland)<sup>2</sup> to the northern parts of the mainland from Alaska to northern Quebec, also in the Arctic

<sup>1</sup> The alleged variety with rusty, black-spotted back mentioned by Müller—obviously based on "Ortolan de la Lorraine" Daubenton, Pl. Enl., pl. 511, fig. 1, which Buffon thought was the female of the Snow Bunting—is *Emberiza cia cia* Linnaeus.

<sup>2</sup> Greenland birds have been separated as *P. n. subnivalis* on account of very slightly smaller size and greater extent of white on wings, tail, and rump, but the divergencies vary a good deal. Salomonsen, in his latest communication, restricts Brehm's subspecific name to the inhabitants of northeastern Greenland, while those from the west coast are stated to be intermediate to *nivalis*.

and Subarctic regions of the Eastern Hemisphere south to about lat. 60° N. in Scandinavia and northern Scotland; winters south to the northern United States and irregularly even to Indiana, Ohio, South Carolina, and Florida; also in Europe south to the Mediterranean, northern Africa, Canary Islands, and Azores; casual in Bermuda.

97: Alaska (Nome, 3); Saskatchewan (Osler, 2); Ontario (Coldstream, 1); Labrador (Port Manvers, 1; Bowdoin Bay, 1); Newfoundland (Codroy, 1); Baffin Land (Peter Force Sound, Frobisher Bay, 1); Greenland (Disko Island, 7; Sukkertoppen, 5; Kugssuak, Arctic Circle, 1; Angmagsalik, East Coast, 3; Musk-ox Fjord, Hudson's Land, 2); New Brunswick (Oak Bay, 1); Maine (Brewer, 1; Lincoln, 1; Orrington, 1); Massachusetts (Cambridge, 2; Hyannis, 1; Revere, 2); Connecticut (East Hartford, 1); Illinois (Waukegan, Lake County, 8); Indiana (Miller, 4); Wisconsin (Beaver Dam, 26); North Dakota (Fort Buford, 10); Montana (Fort Shaw, 4; Fort Keogh, 1; Fort Assiniboine, 5); Wyoming (Fort Douglas, 1).

**\**Plectrophenax nivalis townsendi* Ridgway. PRIBILOF SNOW BUNTING.**

*Plectrophenax nivalis townsendi* Ridgway, Man. N. Amer. Bds., p. 403, 1887—Otter Island, Bering Sea (type in U. S. National Museum); Bent, Smiths. Misc. Coll., 56, No. 32, p. 20, 1912—Akun Island, Aleutians; Brooks, Bull. Mus. Comp. Zool., 59, p. 408, 1915—Copper Island; Hersey, Smiths. Misc. Coll., 66, No. 2, p. 30, 1916—Unalaska; Hartert, Nov. Zool., 27, p. 155, 1920—Copper and Bering Islands (crit.); Preble and McAtee, N. Amer. Faun., 46, p. 92, 1923—Pribilof Islands (breeding, food); Hanna, Condor, 25, p. 61, 1923—Pribilof Islands (migration, eggs, young); Laing, Victoria Mem. Mus., Bull., No. 40, p. 37, 1925—Atka and Attu Islands, Aleutians; Salomonsen, Ibis, 1931, p. 69 (crit.); Swarth, Pacif. Coast Avif., 22, p. 55, 1934—Akutan and Unalaska (Aleutian) and Nunivak Island, Alaska (crit.).

*Passerina nivalis townsendi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 152, 1901 (monog., full bibliog.).

*Range*.—Breeds on the Shumagin, Aleutian, and Pribilof Islands, Alaska, on the Commander Islands, and on the Siberian coast of the Bering Sea.<sup>1</sup>

5: Alaska Peninsula, 2; Bering Sea (St. Paul Island, 3).

<sup>1</sup> The range as here given is "a conventional arrangement due to the need of drawing a dividing line where there is none in nature" between *townsendi* and *nivalis*, as Swarth very aptly puts it. About certain differences exhibited by specimens from the various islands Hartert's and Swarth's remarks should be consulted.

**Plectrophenax nivalis hyperboreus** Ridgway.<sup>1</sup> MCKAY'S SNOW BUNTING.

*Plectrophenax hyperboreus* Ridgway, Proc. U. S. Nat. Mus., 7, p. 68, 1884—St. Michaels, Alaska (type in U. S. National Museum); idem, Auk, 3, p. 276, 1886—Hall Island (breeding); Townsend, Cruise "Corwin," p. 100, col. pl., 1887—Hall Island; Sharpe, Cat. Bds. Brit. Mus., 12, p. 577, 1888—Alaska; Stone, Auk, 15, p. 269, 1898—Bethel, Kuskokwim River, Alaska (Jan. 4); Bent, Smiths. Misc. Coll., 56, No. 32, p. 28, 1912—St. Matthew and Hall Islands; Hanna, Journ. Wash. Acad. Sci., 9, p. 176, 1919; idem, Auk, 37, p. 254, 1920—St. Paul Island, Pribilof group (Mar. 30, 1918); idem, Condor, 25, p. 61, 1923—St. Matthew (eggs descr.); Preble and McAtee, N. Amer. Faun., 46, p. 93, 1923—St. Paul Island, Pribilofs; Swarth, Pacif. Coast Avif., 22, p. 56, 1934—Nunivak Island (transient).

*Passerina hyperborea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 153, 1901 (monog., bibliog.).

*Plectrophenax nivalis hyperboreus* Salomonsen, Ibis, 1931, p. 70 (crit.).

*Range*.—Breeds on Hall and St. Matthew Islands, Bering Sea; migrates to Nunivak Island and to the mainland of Alaska (St. Michael, Kuskokwim River, and Nushagak).

Genus **EMBERIZA** Linnaeus

*Emberiza* Linnaeus, Syst. Nat., 10th ed., 1, p. 176, 1758—type, by subs. desig. (Gray, List Gen. Bds., p. 47, 1840), *Emberiza citrinella* Linnaeus.

*Hypocentor* Cabanis, Mus. Hein., 1, p. 131, Oct., 1851—type, by subs. desig., (Gray, Cat. Gen. Subgen. Bds., p. 79, 1855), *Emberiza aureola* Pallas.

**Emberiza rustica** Pallas. RUSTIC BUNTING.

*Emberiza rustica* Pallas, Reise Versch. Prov. Russ. Reich, 3, p. 698, 1776—Dauria (location of type unrecorded).

*Hypocentor rustica* Bent, Smiths. Misc. Coll., 56, No. 32, p. 19, 1912—Kiska Island, Aleutian chain.

*Range*.—Breeds from Finland throughout Siberia to Kamchatka; winters south to Japan, China, and Turkestan. Casual in Europe and accidental on Kiska Island, Aleutian chain, Alaska (June 19, 1911).

<sup>1</sup> A very distinct form with the maximum of white in the plumage, but according to my conception of taxonomic units undoubtedly conspecific with *P. nivalis*.

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